# R76, Double Metallized Polypropylene Film, Radial, DC and Pulse Applications (Automotive Grade)



#### **Overview**

The R76 series is constructed of polypropylene film and double metallized polyester film as electrodes with radial leads of tinned wire. The radial leads are electrically welded to the metal layer on the ends of the capacitor winding. The capacitor is encapsulated in a self-extinguishing solvent resistant plastic case with thermosetting resin material meeting UL 94 V-0 requirements. Two different winding constructions are used depending on voltage parameters. Please see the Performance Characteristics for more information.

Automotive grade devices (up to lead spacing 22.5 mm) meet the demanding Automotive Electronics Council's AEC-Q200 qualification requirements.

#### **Applications**

Typical applications include resonant circuit, high frequency high current, snubber and silicon-controlled rectifier (SCR and IGBT) and SiC (e.g. MOSFET) commutation circuits as well as applications with high voltage and high current.

Not suitable for across-the-line application (see Suppressor Capacitors).

#### **Benefits**

Voltage range: 250 – 2,000 VDC
 Capacitance range: 100 pF – 12 μF
 Lead Spacing: 7.5 mm – 37.5 mm

Capacitance tolerance: ±2.5%, ±5%, ±10%
Climatic category: 55/110/56 IEC 60068-1

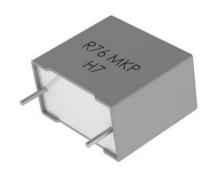
Operating temperature range of -55°C to +110°C

· RoHS compliance and lead-free terminations

Tape & Reel packaging in accordance with IEC 60286-2

Self-healing

· Automotive (AEC-Q200) grade up to lead spacing 22.5 mm



## **Part Number System**

R76	I	D	1680	SE	3	0	K
Series	Rated Voltage (VDC)	Lead Spacing (mm)	Capacitance Code (pF)	Packaging	Intern	al Use	Capacitance Tolerance
Double Metallized Polypropylene	I = 250 M = 400 P = 630 Q = 1,000 T = 1,600 U = 2,000	D = 7.5 F = 10 I = 15 N = 22.5 R = 27.5 W = 37.5	The last three digits represent significant figures. The first digit specifies the total number of zeros to be added.	See Ordering Options Table	00 10 20 30 40	50 60 70 80 L0	H = $\pm 2.5\%$ (*) J = $\pm 5\%$ K = $\pm 10\%$ (*) = for C $\ge 1,000$ pF



## **Ordering Options Table**

Load Chaoing		Lead Length	Lead and		
Lead Spacing Nominal (mm)	Type of Leads and Packaging	(mm)	Packaging Code		
Hommar (mm)	Chandard Lood and Dooks wing Onking	(IIIII)	l ackaging code		
	Standard Lead and Packaging Options	4.04.0	0.5		
	Bulk - Short Leads	4 +2/-0	SE		
	Ammo Pack	H <sub>0</sub> = 18.5±0.5	DQ		
	Other Lead and Packaging Options				
7.5	Tape & Reel (Standard Reel Ø 355 mm)	H <sub>0</sub> = 18.5±0.5	CK		
7.5	Bulk - Short Leads	2.7 +0.5/-0	JA		
	Bulk – Short Leads	3.5 +0.5/-0	JB		
	Bulk - Short Leads	4.0 +0.5/-0	JE		
	Bulk - Short Leads	3.2 +0.3/-0.2	JH		
	Bulk - Long Leads	18±1	JM		
	Bulk – Long Leads	17 +1/-2	Z3		
	Standard Lead and Packaging Options				
	Bulk (Bag) – Short Leads	4 +2/-0	SE		
	Ammo Pack	H <sub>0</sub> = 18.5±0.5	DQ		
	Other Lead and Packaging Options				
	Tape & Reel (Standard Reel Ø 355 mm)	H <sub>0</sub> = 18.5±0.5	GY		
10	Tape & Reel (Large Reel Ø 500 mm)	H <sub>0</sub> = 18.5±0.5	CK		
15	Bulk (Bag) – Short Leads	2.7 +0.5/-0	JA		
15	Bulk (Bag) – Short Leads	3.5 +0.5/-0	JB		
22.5	Bulk (Bag) – Short Leads	10±1	JC		
	Bulk (Bag) – Short Leads	4.0 +0.5/-0	JE		
	Bulk (Bag) – Short Leads	3.2 +0.3/-0.2	JH		
	Bulk (Bag) – Long Leads	18±1	JM		
	Bulk (Bag) – Long Leads	30 +5/-0	40		
	Bulk (Bag) – Long Leads	25 +2/-1	50		
	Standard Load and Docks wing Outland				
	Standard Lead and Packaging Options	4.07.0	0.5		
	Bulk (Tray) – Short Leads	4 +2/-0	SE		
	Other Lead and Packaging Options				
	Tape & Reel (Standard Reel Ø 355 mm)	$H_0 = 18.5 \pm 0.5$	GY		
27.5	Tape & Reel (Large Reel Ø 500 mm)	$H_0 = 18.5 \pm 0.5$	CK <sup>1</sup>		
	Bulk (Tray) - Short Leads	3.5 +0.5/-0	JB		
	Bulk (Tray) - Short Leads	4.0 +0.5/-0	JE 		
	Bulk (Tray) - Short Leads	3.2 +0.3/-0.2	JH		
	Bulk (Tray) – Long Leads	30 +5/-0	40		
	Bulk (Tray) – Long Leads	25 +2/-1	50		

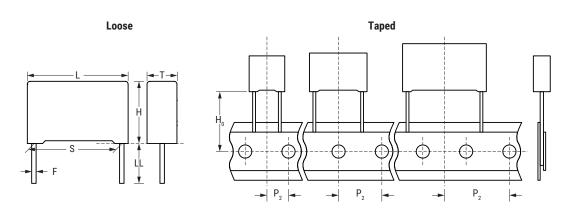
<sup>&</sup>lt;sup>1</sup> = Not for all sizes, see "Packaging Quantities" table.



# **Ordering Options Table cont.**

Lead Spacing Nominal (mm)	Type of Leads and Packaging	Lead Length (mm)	Lead and Packaging Code	
	Standard Lead and Packaging Options			
	Bulk (Tray) – Short Leads	4 +2/-0	SE	
	Other Lead and Packaging Options			
37.5	Bulk (Tray) – Short Leads	3.5 +0.5/-0	JB	
	Bulk (Tray) – Short Leads	4.0 +0.5/-0	JE	
	Bulk (Tray) – Short Leads	3.2 +0.3/-0.2	JH	
	Bulk (Tray) – Long Leads	30 +5/-0	40	
	Bulk (Tray) – Long Leads	25 +2/-1	50	

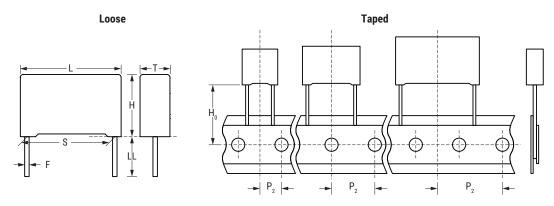
# **Dimensions - Millimeters**



	S		Т	ı	1		L		F						
Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance						
7.5	±0.4	3.0	+0.1/-0.5	8.0	+0.1/-0.5	10.0	+0.2/-0.5	0.5	±0.05						
7.5	±0.4	4.0	+0.1/-0.5	9.0	+0.1/-0.5	10.0	+0.2/-0.5	0.6	±0.05						
7.5	±0.4	5.0	+0.1/-0.5	10.5	+0.1/-0.5	10.0	+0.2/-0.5	0.6	±0.05						
7.5	±0.4	6.0	+0.1/-0.5	12.0	+0.1/-0.5	10.5	+0.2/-0.5	0.6	±0.05						
10.0															
10.0 ±0.4 5.0 +0.2/-0.5 11.0 +0.1/-0.5 13.0 +0.2/-0.5 0.6 ±0.0															
10.0	±0.4	6.0	+0.2/-0.5	12.0	+0.1/-0.5	13.0	+0.2/-0.5	0.6	±0.05						
15.0	±0.4	4.0	+0.2/-0.5	10.0	+0.1/-0.5	18.0	+0.3/-0.5	0.8	±0.05						
15.0	±0.4	5.0	+0.2/-0.5	11.0	+0.1/-0.5	18.0	+0.3/-0.5	0.8	±0.05						
15.0	±0.4	6.0	+0.2/-0.5	12.0	+0.1/-0.5	18.0	+0.3/-0.5	0.8	±0.05						
15.0	±0.4	7.5	+0.2/-0.5	13.5	+0.1/-0.5	18.0	+0.5/-0.5	0.8	±0.05						
15.0	±0.4	8.5	+0.2/-0.5	14.5	+0.1/-0.5	18.0	+0.5/-0.5	0.8	±0.05						
15.0	±0.4	9.0	+0.2/-0.5	12.5	+0.1/-0.5	18.0	+0.5/-0.5	0.8	±0.05						
15.0	15.0 ±0.4 10.0 +0.2/-0.5 16.0 +0.1/-0.5 18.0 +0.5/-0.5 0.8 ±0.05														
	Note: See Ordering Options Table for lead length (LL/Ho) options.														



# **Dimensions - Millimeters cont.**



	S		Т		Н		L		F					
Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance					
15.0	±0.4	11.0	+0.2/-0.5	19.0	+0.1/-0.5	18.0	+0.5/-0.5	0.8	±0.05					
15.0	±0.4	13.0	+0.2/-0.5	12.0	+0.1/-0.5	18.0	+0.5/-0.5	0.8	±0.05					
22.5	±0.4	6.0	+0.2/-0.5	15.0	+0.1/-0.5	26.5	+0.3/-0.5	0.8	±0.05					
22.5	±0.4	7.0	+0.2/-0.5	16.0	+0.1/-0.5	26.5	+0.3/-0.5	0.8	±0.05					
22.5	±0.4	8.5	+0.2/-0.5	17.0	+0.1/-0.5	26.5	+0.3/-0.5	0.8	±0.05					
22.5	±0.4	10.0	+0.2/-0.5	18.5	+0.1/-0.5	26.5	+0.3/-0.5	0.8	±0.05					
22.5	±0.4	11.0	+0.2/-0.5	20.0	+0.1/-0.5	26.5	+0.3/-0.5	0.8	±0.05					
22.5	±0.4	13.0	+0.2/-0.5	22.0	+0.1/-0.5	26.5	+0.3/-0.5	0.8	±0.05					
22.5	±0.4	14.5	+0.2/-0.5	29.5	+0.1/-0.5	26.5	+0.3/-0.5	0.8	±0.05					
27.5	±0.4	9.0	+0.2/-0.7	17.0	+0.1/-0.7	32.0	+0.3/-0.7	0.8	±0.05					
27.5 ±0.4 11.0 +0.2/-0.7 20.0 +0.1/-0.7 32.0 +0.3/-0.7 0.8 ±0.05														
27.5	±0.4	13.0	+0.2/-0.7	22.0	+0.1/-0.7	32.0	+0.3/-0.7	0.8	±0.05					
27.5	±0.4	13.0	+0.2/-0.7	25.0	+0.1/-0.7	32.0	+0.3/-0.7	0.8	±0.05					
27.5	±0.4	14.0	+0.2/-0.7	28.0	+0.1/-0.7	32.0	+0.3/-0.7	0.8	±0.05					
27.5	±0.4	16.0	+0.2/-0.7	30.0	+0.1/-0.7	32.0	+0.3/-0.7	0.8	±0.05					
27.5	±0.4	18.0	+0.2/-0.7	33.0	+0.1/-0.7	32.0	+0.3/-0.7	0.8	±0.05					
27.5	±0.4	22.0	+0.2/-0.7	37.0	+0.1/-0.7	32.0	+0.3/-0.7	0.8	±0.05					
27.5	±0.4	24.0	+0.2/-0.7	15.0	+0.1/-0.7	32.0	+0.3/-0.7	0.8	±0.05					
37.5	±0.4	11.0	+0.3/-0.7	22.0	+0.1/-0.7	41.5	+0.3/-0.7	1.0	±0.05					
37.5	±0.4	13.0	+0.3/-0.7	24.0	+0.1/-0.7	41.5	+0.3/-0.7	1.0	±0.05					
37.5														
37.5	±0.4	19.0	+0.3/-0.7	32.0	+0.1/-0.7	41.5	+0.3/-0.7	1.0	±0.05					
37.5	±0.4	20.0	+0.3/-0.7	40.0	+0.1/-0.7	41.5	+0.3/-0.7	1.0	±0.05					
37.5 ±0.4 24.0 +0.3/-0.7 44.0 +0.1/-0.7 41.5 +0.3/-0.7 1.0														
37.5 ±0.4 24.0 +0.3/-0.7 15.0 +0.1/-0.7 41.5 +0.3/-0.7 1.0 ±0.05														
37.5	37.5 ±0.4 24.0 +0.3/-0.7 19.0 +0.1/-0.7 41.5 +0.3/-0.7 1.0 ±0.05													
37.5	±0.4	30.0	+0.3/-0.7	45.0	+0.1/-0.7	41.5	+0.3/-0.7	1.0	±0.05					
		N	lote: See Orderi	ng Options Tab	le for lead lengt	th (LL/Ho) optio	ons.	<u></u>						

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#### **Performance Characteristics**

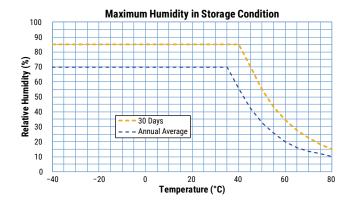
Plates Double sided metallized polyester film  Winding Non-inductive type  Leads Tinned wire Protection Plastic case, thermosetting resin filled. Box material is solvent resistant and flame retardant according to UL94.  Related Documents  EC 60384-16  Sections 1 2 Rated Voltage V <sub>x</sub> 250 VDC 400 VDC 630 VDC 400 VAC 400 VAC 600 VAC 60	Dielectric	Polypropyler	ne film									
Non-inductive type				lvester film								
Leads   Tinned wire   Protection   Plastic case, thermosetting resin filled. Box material is solvent resistant and flame retardant according to UL94.   Related Documents   IEC 60384-16   Sections   1   2   250 VDC   400 VDC   250 VDC   400 VDC   650 VDC   400 VDC   650 VDC   400 VDC   650 VDC   400 VDC   650 VDC   2,000 VDC   2,000 VDC   650 VDC   2,000 VD			·									
Protection   Plastic case, thermosetting resin filled. Box material is solvent resistant and flame retardant according to UL94.			е турс									
Related Documents   IEC 60384-16     2   2   250 VDC   400 VDC   250 VAC   250 VAC   250 VAC   250 VAC   250 VAC   400 VAC   400 VAC   400 VAC   650 VAC   650 VAC   700 VAC   700 VAC   600 VAC   650 VAC   700 VAC			thermosetting	resin filled Ro	v material is so	nlvent resistant	and flame reta	rdant accordin	n to III 94			
Sections   1					X III ateriar 13 30	Jivent registant	and name reta		g (0 0L)4.			
Rated Voltage V <sub>R</sub> 250 VDC 180 VAC 250 VAC 250 VAC 400 VDC 630 VDC 1,000 VDC 1,000 VDC 650 VAC 700 VAC 250 VAC 400 VAC 400 VAC 600 VAC 650 VAC 700 VA		120 00004 1					2					
Rated Voltage V		250 VDC		630 VDC	630 VDC	1 000 VDC		1 600 VDC	2 000 VDC			
Capacitance Values  Capacitance Tolerance  Operating Temperature Range  Rated Temperature Range  The following decreasing factor has to be applied on the rated voltage: +85°C to +110°C: 1.25% per °C for V <sub>R</sub> (DC and AC)  Climatic Category  Storage Enative humidity per year ≤ 70%  Storage Conditions  RH ≤ 85% for 30 days randomly distributed throughout the year  Dew is absent  Temperature: -40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage  Capacitance Drift  Maximum Pulse Steepness  d'(At according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.  Operating Temperature coefficient  Temperature Coefficient  -(200±100) ppm/°C at 1 kHz  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5	Rated Voltage V <sub>R</sub>								700 VAC			
Capacitance Tolerance  Operating Temperature Range  Rated Temperature T <sub>R</sub> +85°C for V <sub>R</sub> (DC and AC)  The following decreasing factor has to be applied on the rated voltage: +85°C to +110°C: 1.25% per °C for V <sub>R</sub> (DC and AC)  Climatic Category  Storage time: ≤ 24 months from the date marked on the label package  Average relative humidity per year ≤ 70%  Storage Conditions  RH ≤ 85% for 30 days randomly distributed throughout the year  Dew is absent  Temperature: -40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to can be multiplied by the factor V <sub>R</sub> /V.  Operational life > 200,000 hours at 85°C  Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5	Capacitance Range (µF)	0.0068-12	0.0027 - 8.2	0.00068 - 0.012	0.0039 - 3.9	0.00022 - 0.0033	0.00047 - 2.2	0.0022 - 1.2	0.0001 - 0.56			
Operating Temperature Range  Rated Temperature T <sub>R</sub> +85°C for V <sub>R</sub> (DC and AC)  Voltage Derating  The following decreasing factor has to be applied on the rated voltage: +85°C to +110°C: 1.25% per °C for V <sub>R</sub> (DC and AC)  Climatic Category  55/110/56 IEC 60068-1  Storage time: ≤ 24 months from the date marked on the label package  Average relative humidity per year ≤ 70%  RH ≤ 85% for 30 days randomly distributed throughout the year  Dew is absent  Temperature: −40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage  Capacitance Drift  Maximum Pulse Steepness  Average relative humidity of 40% to 60%  dV/dt according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.  Operational life > 200,000 hours at 85°C  Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5	Capacitance Values	E12 series (I	EC 60063) mea	asured at 1 kHz	and +20±1°C							
Rated Temperature T <sub>R</sub> +85°C for V <sub>R</sub> (DC and AC)  Voltage Derating The following decreasing factor has to be applied on the rated voltage: +85°C to +110°C: 1.25% per °C for V <sub>R</sub> (DC and AC)  Climatic Category 55/110/56 IEC 60068−1  Storage time: ≤ 24 months from the date marked on the label package  Average relative humidity per year ≤ 70%  RH ≤ 85% for 30 days randomly distributed throughout the year  Dew is absent Temperature: −40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage Capacitance Drift Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Maximum Pulse Steepness Steepness Pailure of Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.  Operational life > 200,000 hours at 85°C  Failure rate ≤ 1 FIT, T = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient −(200±100) ppm/°C at 1 kHz  Lead Spacing (mm) 7.5 10 15 22.5 27.5 37.5	Capacitance Tolerance	±2.5%, ±5%,	2.5%, ±5%, ±10%									
The following decreasing factor has to be applied on the rated voltage: +85°C to +110°C: 1.25% per °C for V <sub>R</sub> (DC and AC)  Climatic Category  55/110/56 IEC 60068-1  Storage time: ≤ 24 months from the date marked on the label package  Average relative humidity per year ≤ 70%  RH ≤ 85% for 30 days randomly distributed throughout the year  Dew is absent  Temperature: -40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  W/dt according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.  Qperational life > 200,000 hours at 85°C  Failure rate ≤ 1 FIT, T = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  -(200±100) ppm/°C at 1 kHz  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5		-55°C to +11	0°C									
H85°C to +110°C: 1.25% per °C for V <sub>R</sub> (DC and AC)  Climatic Category  Storage time: ≤ 24 months from the date marked on the label package  Average relative humidity per year ≤ 70%  RH ≤ 85% for 30 days randomly distributed throughout the year  Dew is absent  Temperature: −40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  dV/dt according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.  Operational life > 200,000 hours at 85°C  Failure rate ≤ 1 FIT, T = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5	Rated Temperature T <sub>R</sub>	+85°C for V <sub>R</sub>	85°C for V <sub>R</sub> (DC and AC)									
Storage time: ≤ 24 months from the date marked on the label package  Average relative humidity per year ≤ 70%  RH ≤ 85% for 30 days randomly distributed throughout the year  Dew is absent  Temperature: −40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Maximum Pulse Steepness  W/dt according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.  Operational life > 200,000 hours at 85°C  Failure rate ≤ 1 FIT, T = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5	Voltage Derating											
Average relative humidity per year ≤ 70%  RH ≤ 85% for 30 days randomly distributed throughout the year  Dew is absent  Temperature: -40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage  1.6 x V <sub>R</sub> VDC for 2 seconds (between terminations) at +25°C ±5°C  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Maximum Pulse Steepness  dV/dt according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.  Qperational life > 200,000 hours at 85°C  Failure rate ≤ 1 FIT, T = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  Lead Spacing (mm)  7.5 10 15 22.5 27.5 37.5	Climatic Category	55/110/56 IE										
Storage Conditions  RH ≤ 85% for 30 days randomly distributed throughout the year  Dew is absent  Temperature: -40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage 1.6 x V <sub>R</sub> VDC for 2 seconds (between terminations) at +25°C ±5°C  Capacitance Drift 60%  Maximum Pulse Steepness  dV/dt according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.  Operational life > 200,000 hours at 85°C  Failure rate ≤ 1 FIT, T = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5		Storage time	e: ≤ 24 months	from the date m	arked on the la	abel package						
Dew is absent  Temperature: -40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage  1.6 x V <sub>R</sub> VDC for 2 seconds (between terminations) at +25°C ±5°C  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Wold according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.  Operational life > 200,000 hours at 85°C  Failure rate ≤ 1 FIT, T = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  -(200±100) ppm/°C at 1 kHz  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5		Average rela	tive humidity p	er year ≤ 70%								
Temperature: -40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)  Test Voltage  1.6 x V <sub>R</sub> VDC for 2 seconds (between terminations) at +25°C ±5°C  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Maximum Pulse Steepness  dV/dt according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.  Operational life > 200,000 hours at 85°C  Failure rate $\leq$ 1 FIT, T = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  -(200±100) ppm/°C at 1 kHz	Storage Conditions	RH ≤ 85% for 30 days randomly distributed throughout the year										
Test Voltage  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Maximum Pulse Steepness  Maximum Pulse Steepness  Capacitance Drift  Maximum Pulse Steepness  Maximum Pulse Steepness  Capacitance Drift  Maximum Pulse Steepness  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C of the 40°C		Dew is absent										
Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to $60\%$ Maximum Pulse Steepness  Operational life > 200,000 hours at 85°C  Reliability (Reference IEC 61709)  Representative for the specified dV/dt can be multiplied by the factor $V_R/V$ .  Failure rate $\leq$ 1 FIT, $T = +40$ °C, $V = 0.5 \times V_R$ Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  Capacitance Drift  Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to $60\%$ Overational life > 200,000 hours at 85°C  Failure rate $\leq$ 1 FIT, $T = +40$ °C, $V = 0.5 \times V_R$ Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5		Temperature: −40 to 80°C (see "Maximum Humidity in Storage Conditions" graph below)										
Capacitance Drift         60%         Maximum Pulse Steepness       dV/dt according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor $V_R/V$ .         Questional life > 200,000 hours at 85°C         Failure rate ≤ 1 FIT, T = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit	Test Voltage	1.6 x V <sub>R</sub> VD0	for 2 seconds	(between term	inations) at +2	5°C ±5°C						
Maximum Pulse Steepness $\frac{dV}{dt}$ according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified $\frac{dV}{dt}$ can be multiplied by the factor $\frac{V_R}{V}$ .  Operational life > 200,000 hours at 85°C  Failure rate $\leq 1$ FIT, T = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient $\frac{-(200\pm100)}{(200\pm100)}$ ppm/°C at 1 kHz  Lead Spacing (mm) $\frac{7.5}{10}$ $\frac{10}{15}$ $\frac{10}{22.5}$ $\frac{27.5}{27.5}$ $\frac{37.5}{27.5}$	Capacitance Drift		5% after a 2 ye	ar storage perio	d at a tempera	ature of +10°C to	o +40°C and a r	elative humidit	y of 40% to			
Reliability (Reference IEC 61709)		dV/dt accord			Itages lower th	an rated voltag	e (V < V <sub>R</sub> ), the s	specified dV/dt				
(Reference IEC 61709)  Failure rate $\leq$ 1 F11, 1 = +40°C, V = 0.5 x V <sub>R</sub> Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  -(200±100) ppm/°C at 1 kHz  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5		Operational	life > 200,000 l	hours at 85°C								
Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit  Temperature Coefficient  -(200±100) ppm/°C at 1 kHz  Lead Spacing (mm)  7.5  10  15  22.5  27.5  37.5												
Lead Spacing (mm) 7.5 10 15 22.5 27.5 37.5	(Neterence ILO 01709)	Failure criter	ria: open or sho	ort circuit, cap. (	change > 10%,	DF 2 times the	catalog limits, I	R < 0.005 x init	ial limit			
Salf-Industance	Temperature Coefficient	-(200±100) <sub> </sub>	opm/°C at 1 kF									
Self-Inductance		Lead Spa	cing (mm)	7.5	10	15	22.5	27.5	37.5			
(Lead Length ~ 2 mm)	Self-Inductance	L (nH) ≈ 8 9 10 16 18 20										
Max 1 nH per 1 mm lead and capacitor length	(Lead Length - 2 mm)											

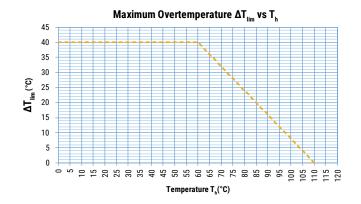


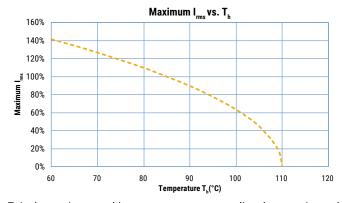
#### **Performance Characteristics cont.**

		Measured at 25°C ±5°C									
	Frequency	C ≤ 0.1 µF	0.1 μF < 0	C ≤ 1.0 μF	C > 1µF						
Dissipation Factor tanδ	1 kHz	≤ 0.03%	≤ 0.0	)3%	≤ 0.04%						
	10 kHz	≤ 0.04%	≤ 0.0	06%	-						
	100 kHz	≤ 0.10%	-	-	-						
	Measured at +25°C, 100 VDC 60 seconds										
		Mir	nimum Values B	s Between Terminals							
Insulation Resistance		C ≤ 0.33 µF		C > 0.33 µF							
		$\geq 100,000 \text{ M}\Omega$ ( $\geq 500,000 \text{ M}\Omega$ )*		≥ 30,000 MΩ • μF ( ≥ 150,000 MΩ • μF )*							

<sup>\*</sup> Typical value







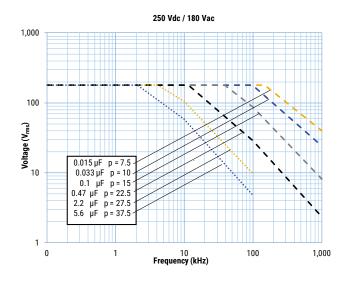
 $T_h$  is the maximum ambient temperature surrounding the capacitor or hottest contact point (e.g. tracks), whichever is higher, in the worst operation conditions in °C.

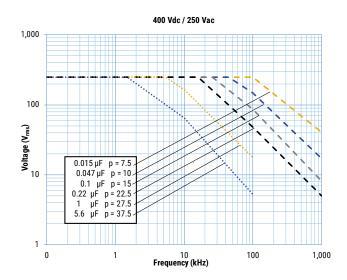
#### Qualification

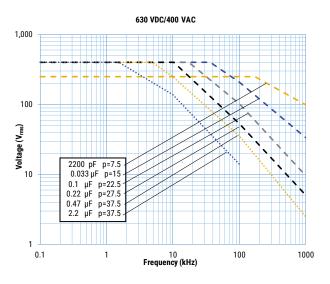
Automotive Grade products meet or exceed the requirements outlined by the Automotive Electronics Council. Details regarding test methods and conditions are referenced in document AEC-Q200, Stress Test Qualification for Passive Components. For additional information regarding the Automotive Electronics Council and AEC-Q200, please visit their website at www.aecouncil.com.

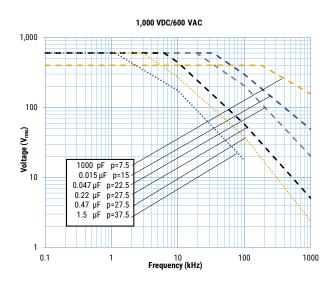


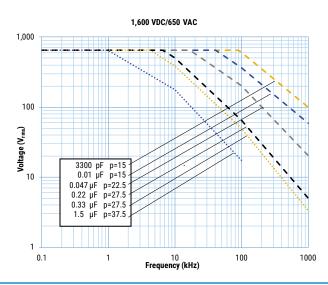
# Maximum Voltage (V<sub>rms</sub>) Versus Frequency (Sinusoidal Waveform/Th ≤ 85°C)

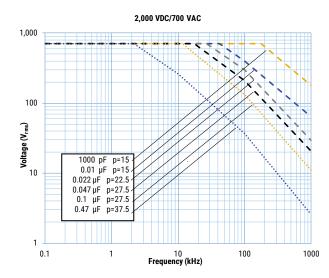






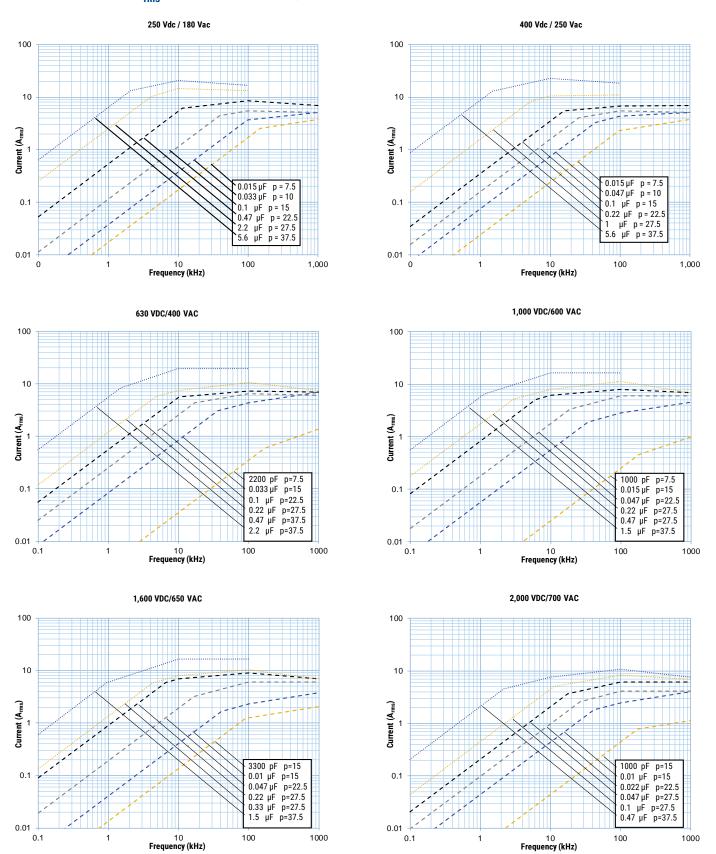








# Maximum Current (I<sub>rms</sub>) Versus Frequency (Sinusoidal Waveform/Th ≤ 85°C)





#### **Environmental Test Data**

Damp Heat, Steady State Test	Test Cor	nditions:	Performances				
	Temperature: Relative humidity (RH): Test duration:	+40°C ±2°C 93% ±2% 56 days	$ \Delta$ C/C  ≤ 2%, $\Delta$ tan $\delta$ ≤ 0.001 at 1 kHz IR after test ≥ 50% of initial limit				
<b>Endurance Test</b>	Test Co	nditions	Performances				
	Temperature: Voltage applied: Test duration:	+85°C ±2°C 1.25 x V <sub>R</sub> (DC) 2,000 hours	$ \Delta$ C/C  ≤ 2%, $\Delta$ tan $\delta$ ≤ 0.001 at 10 kHz for C ≤ 1 $\mu$ F $\Delta$ tan $\delta$ ≤ 0.001 at 1 kHz for C > 1 $\mu$ F IR after test ≥ 50% of initial limit				
Resistance to Soldering Heat Test	Test Co	nditions	Performances				
	Solder bath temperature: Dipping time (with heat screen):	260°C ±5°C 10 seconds ±1 second	$\Delta$ C/C  ≤ 1%, $\Delta$ tan $\delta$ ≤ 0.001 at 10 kHz for C ≤ 1 $\mu$ F $\Delta$ tan $\delta$ ≤ 0.001 at 1 kHz for C > 1 $\mu$ F IR after test ≥ initial limit				

# **Environmental Compliance**

All KEMET pulse capacitors are RoHS compliant.





										ESL	ESR max	I <sub>rms max</sub> (*)	Rth		
VDC	VAC	Cap Value (µF)		nensi in mn		Lead Spacing (S)	dV/dt (V/μs)	Max Κ (V²/μs)	pkr	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C		KEMET Internal Part Number	Customer Part Number
			Т	н	L				<b>A</b> <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
250	180	0.0068	3.0	8.0	10.0	7.5	1,100	550,000	7	8	94	0.8	98	76ID1680(1)30(2)	R76ID1680(1)30(2)
250	180	0.0082	3.0	8.0	10.0	7.5	1,100	550,000	9	8	78	0.9	98	76ID1820(1)30(2) 76ID2100(1)30(2)	R76ID1820(1)30(2)
250 250	180 180	0.01 0.012	3.0 4.0	8.0 9.0	10.0 10.0	7.5 7.5	1,100 1,100	550,000 550,000	11 13	8 8	64 53	1.1 1.4	98 88	76ID2100(1)30(2)	R76ID2100(1)30(2) R76ID2120(1)40(2)
250	180	0.012	4.0	9.0	10.0	7.5	1,100	550,000	17	8	42	1.7	88	76ID2120(1)40(2)	R76ID2150(1)40(2)
250	180	0.018	4.0	9.0	10.0	7.5	1,100	550,000	20	8	35	2.0	88	76ID2180(1)40(2)	R76ID2180(1)40(2)
250	180	0.022	4.0	9.0	10.0	7.5	1,100	550,000	24	8	29	2.5	88	76ID2220(1)40(2)	R76ID2220(1)40(2)
250	180	0.027	5.0	10.5	10.0	7.5	1,100	550,000	30	8	24	3.1	78	76ID2270(1)40(2)	R76ID2270(1)40(2)
250 250	180 180	0.033 0.039	5.0 6.0	10.5 12.0	10.0 10.5	7.5 7.5	1,100 1,100	550,000 550,000	36 43	8 8	19 16	3.6 4.2	78 69	76ID2330(1)40(2) 76ID2390(1)30(2)	R76ID2330(1)40(2) R76ID2390(1)30(2)
250	180	0.039	6.0	12.0	10.5	7.5	1,100	550,000	52	8	14	4.2	69	76ID2390(1)30(2)	R76ID2390(1)30(2)
250	180	0.027	4.0	9.0	13.0	10.0	1,000	500,000	27	9	24	3.1	79	76IF2270(1)30(2)	R76IF2270(1)30(2)
250	180	0.033	4.0	9.0	13.0	10.0	1,000	500,000	33	9	19	3.6	79	76IF2330(1)30(2)	R76IF2330(1)30(2)
250	180	0.039	4.0	9.0	13.0	10.0	1,000	500,000	39	9	16	3.9	79	76IF2390(1)30(2)	R76IF2390(1)30(2)
250	180	0.047	5.0	11.0	13.0	10.0	1,000	500,000	47	9	14	4.6	69	76IF2470(1)30(2)	R76IF2470(1)30(2)
250	180	0.056	5.0	11.0	13.0	10.0	1,000	500,000	56	9	20	3.8	69	76IF2560(1)30(2)	R76IF2560(1)30(2)
250 250	180 180	0.068 0.082	6.0 6.0	12.0 12.0	13.0 13.0	10.0 10.0	1,000 1,000	500,000 500,000	68 82	9 9	16 14	4.4 4.8	64 64	76IF2680(1)30(2) 76IF2820(1)30(2)	R76IF2680(1)30(2) R76IF2820(1)30(2)
250	180	0.062	5.0	11.0	18.0	15.0	550	275,000	37	10	16	4.5	60	76II2680(1)30(2)	R76II2680(1)30(2)
250	180	0.082	5.0	11.0	18.0	15.0	550	275,000	45	10	14	4.9	60	76112820(1)30(2)	R76II2820(1)30(2)
250	180	0.1	5.0	11.0	18.0	15.0	550	275,000	55	10	11	5.5	60	76113100(1)30(2)	R76II3100(1)30(2)
250	180	0.12	6.0	12.0	18.0	15.0	550	275,000	66	10	13	5.2	56	76113120(1)30(2)	R76II3120(1)30(2)
250	180	0.15	6.0	12.0	18.0	15.0	550	275,000	83	10	11	5.8	56	76113150(1)30(2)	R76II3150(1)30(2)
250	180	0.18	7.5	13.5	18.0	15.0	550	275,000	99 99	10	9	6.7	51	76113180(1)30(2)	R76II3180(1)30(2)
250 250	180 180	0.18 0.22	9.0 7.5	12.5 13.5	18.0 18.0	15.0 15.0	550 550	275,000 275,000	121	10 10	7	6.8 7.4	50 51	76II3180(1)70(2) 76II3220(1)30(2)	R76II3180(1)70(2) R76II3220(1)30(2)
250	180	0.22	9.0	12.5	18.0	15.0	550	275,000	121	10	7	7.5	50	76113220(1)70(2)	R76II3220(1)70(2)
250	180	0.27	8.5	14.5	18.0	15.0	550	275,000	149	10	6	8.4	48	76113270(1)30(2)	R76II3270(1)30(2)
250	180	0.27	9.0	12.5	18.0	15.0	550	275,000	149	10	6	8.3	50	76113270(1)70(2)	R76II3270(1)70(2)
250	180	0.33	10.0	16.0	18.0	15.0	550	275,000	182	10	5	9.7	44	76113330(1)30(2)	R76II3330(1)30(2)
250	180	0.33	13.0	12.0	18.0	15.0	550	275,000	182	10	5 4	9.6	45	76113330(1)70(2)	R76II3330(1)70(2)
250 250	180 180	0.39 0.47	10.0 11.0	16.0 19.0	18.0 18.0	15.0 15.0	550 550	275,000 275,000	215 259	10 10	3	10.5 12.1	44 40	76II3390(1)30(2) 76II3470(1)30(2)	R76II3390(1)30(2) R76II3470(1)30(2)
250	180	0.47	6.0	15.0	26.5	22.5	300	150,000	66	16	11	6.5	43	76IN3220(1)00(2)	R76IN3220(1)00(2)
250	180	0.27	6.0	15.0	26.5	22.5	300	150,000	81	16	9	7.2	43	76IN3270(1)30(2)	R76IN3270(1)30(2)
250	180	0.33	6.0	15.0	26.5	22.5	300	150,000	99	16	7	8.0	43	76IN3330(1)30(2)	R76IN3330(1)30(2)
250	180	0.39	7.0	16.0	26.5	22.5	300	150,000	117	16	8	7.7	41	76IN3390(1)30(2)	R76IN3390(1)30(2)
250	180	0.47	7.0	16.0	26.5	22.5	300	150,000	141	16	7	8.5	41	76IN3470(1)30(2)	R76IN3470(1)30(2)
250 250	180 180	0.56 0.68	8.5 10.0	17.0 18.5	26.5 26.5	22.5 22.5	300 300	150,000 150,000	168 204	16 16	6 4.7	9.6 10.9	38 36	76IN3560(1)30(2)	R76IN3560(1)30(2)
250	180	0.82		18.5		22.5	300	150,000	246	16	3.9	10.9	36	76IN3680(1)30(2) 76IN3820(1)30(2)	R76IN3680(1)30(2) R76IN3820(1)30(2)
250	180	1		20.0		22.5	300	150,000	300	16	5.6	10.3	34	76IN4100(1)30(2)	R76IN4100(1)30(2)
250	180	1.2	13.0	22.0	26.5	22.5	300	150,000	360	16	4.6	11.7	31	76IN4120(1)30(2)	R76IN4120(1)30(2)
250	180	1.5	14.5		26.5	22.5	300	150,000	450	16	3.7	14.1	27	76IN4150(1)30(2)	R76IN4150(1)30(2)
250	180	1.8		29.5		22.5	300	150,000	540	16	3.1	15.4	27	76IN4180(1)30(2)	R76IN4180(1)30(2)
250	180	0.82	9.0	17.0		27.5	200	100,000	164	18	6 6	9.9 10.7	35	76IR3820(1)30(2)	R76IR3820(1)30(2)
250 250	180 180	1 1	11.0 24.0	20.0 15.0		27.5 27.5	200 200	100,000 100,000	200 200	18 18	6	10.7 11.5	31 27	76IR4100(1)30(2) 76IR4100(1)L0(2)	R76IR4100(1)30(2) R76IR4100(1)L0(2)
250	180	1.2		20.0		27.5	200	100,000	240	18	5.3	11.0	31	76IR4120(1)40(2)	R76IR4120(1)40(2)
VDC	VAC	Сар	т	н	L	Lead Spacing	dV/dt	Max K	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET Internal	Customer
400	VAU	Value	1	, n	_	(S)	(V/µs)	(V²/μs)̈́	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



VDC	VAC	Cap Value (µF)		nensi in mn		Lead Spacing (S)	dV/dt (V/µs)	Max Κ <sub>0</sub> (V²/μs)	l <sub>pkr</sub>	ESL Lead Length	ESR max	I <sub>rms max</sub> (*) at 100 kHz	Rth	KEMET Internal Part Number	Customer Part Number
		(µг)	Т	н	L	(3)			A <sub>pk</sub>	2x 4 mm nH	kHz mΩ	85°C A <sub>rms</sub>	(°C/W)	Part Number	Number
250	180	1.2	24.0	15.0	32.0	27.5	200	100,000	240	18	5	11.8	27	76IR4120(1)L0(2)	R76IR4120(1)L0(2)
250	180	1.5	13.0	22.0	32.0	27.5	200	100,000	300	18	4.2	12.7	29	76IR4150(1)30(2)	R76IR4150(1)30(2)
250	180	1.5	24.0	15.0	32.0	27.5	200	100,000	300	18	4	13.2	27	76IR4150(1)L0(2)	R76IR4150(1)L0(2)
250	180	1.8	13.0	25.0	32.0	27.5	200	100,000	360	18	5.3	11.7	28	76IR4180(1)20(2)	R76IR4180(1)20(2)
250	180	1.8	24.0	15.0	32.0	27.5	200	100,000	360	18	5	11.8	27	76IR4180(1)L0(2)	R76IR4180(1)L0(2)
250 250	180 180	2.2 2.7	14.0 18.0	28.0 33.0	32.0 32.0	27.5 27.5	200 200	100,000 100,000	440 540	18 18	4.3 7.1	13.3 11.1	26 23	76IR4220(1)40(2) 76IR4270(1)30(2)	R76IR4220(1)40(2)
250	180	2.7	16.0	30.0	32.0	27.5	200	100,000	540	18	7.1	10.7	25 25	76IR4270(1)30(2)	R76IR4270(1)30(2) R76IR4270(1)40(2)
250	180	3.3	18.0	33.0	32.0	27.5	200	100,000	660	18	5.8	12.3	23	76IR4330(1)30(2)	R76IR4330(1)30(2)
250	180	3.9	18.0	33.0	32.0	27.5	200	100,000	780	18	4.9	13.3	23	76IR4390(1)30(2)	R76IR4390(1)30(2)
250	180	4.7	22.0	37.0	32.0	27.5	200	100,000	940	18	4.1	15.4	21	76IR4470(1)30(2)	R76IR4470(1)30(2)
250	180	5.6	22.0	37.0	32.0	27.5	200	100,000	1,120	18	3.4	16.8	21	76IR4560(1)40(2)	R76IR4560(1)40(2)
250	180	1.2	11.0	22.0	41.5	37.5	100	50,000	120	20	5.3	11.8	27	76IW4120(1)30(2)	R76IW4120(1)30(2)
250	180	1.5	11.0	22.0	41.5	37.5	100	50,000	150	20	4.2	13.2	27	76IW4150(1)30(2)	R76IW4150(1)30(2)
250 250	180 180	1.5 1.8	24.0 11.0	15.0 22.0	41.5 41.5	37.5 37.5	100 100	50,000 50,000	150 180	20 20	4.2 5.3	13.9 11.8	24 27	76IW4150(1)L0(2) 76IW4180(1)30(2)	R76IW4150(1)L0(2)
250	180	1.8	24.0	15.0	41.5	37.5	100	50,000	180	20	5.3	12.4	24	76IW4180(1)30(2)	R76IW4180(1)30(2) R76IW4180(1)L0(2)
250	180	2.2	13.0	24.0	41.5	37.5	100	50,000	220	20	4.3	13.5	25	76IW4220(1)30(2)	R76IW4220(1)30(2)
250	180	2.2	24.0	15.0	41.5	37.5	100	50,000	220	20	4.3	13.7	24	76IW4220(1)L0(2)	R76IW4220(1)L0(2)
250	180	2.7	16.0	28.5	41.5	37.5	100	50,000	270	20	7.1	11.2	23	76IW4270(1)20(2)	R76IW4270(1)20(2)
250	180	2.7	24.0	19.0	41.5	37.5	100	50,000	270	20	7.1	11.1	23	76IW4270(1)L0(2)	R76IW4270(1)L0(2)
250	180	3.3	16.0	28.5	41.5	37.5	100	50,000	330	20	5.8	12.4	23	76IW4330(1)30(2)	R76IW4330(1)30(2)
250	180	3.3	24.0	19.0	41.5	37.5	100	50,000	330	20	5.8	12.3	23	76IW4330(1)L0(2)	R76IW4330(1)L0(2)
250 250	180 180	3.9 4.7	16.0 19.0	28.5 32.0	41.5 41.5	37.5 37.5	100 100	50,000 50,000	390 470	20 20	4.9 4.1	13.5 15.4	23 21	76IW4390(1)30(2) 76IW4470(1)30(2)	R76IW4390(1)30(2)
250	180	5.6	20.0	40.0	41.5	37.5 37.5	100	50,000	560	20	3.4	17.7	19	76IW4560(1)20(2)	R76IW4470(1)30(2) R76IW4560(1)20(2)
250	180	6.8	20.0	40.0	41.5	37.5	100	50,000	680	20	7.0	12.3	19	76IW4680(1)30(2)	R76IW4680(1)30(2)
250	180	8.2	24.0	44.0	41.5	37.5	100	50,000	820	20	5.8	14.1	17	76IW4820(1)20(2)	R76IW4820(1)20(2)
250	180	10	24.0	44.0	41.5	37.5	100	50,000	1,000	20	4.8	15.6	17	76IW5100(1)30(2)	R76IW5100(1)30(2)
250	180	12	30.0	45.0	41.5	37.5	100	50,000	1,200	20	9.9	11.2	16	76IW5120(1)30(2)	R76IW5120(1)30(2)
400	250	0.0027	3.0	8.0	10.0	7.5	1,700	1,360,000	5	8	236	0.4	98	76MD1270(1)30(2)	R76MD1270(1)30(2)
400	250	0.0033	3.0	8.0	10.0	7.5	1,700	1,360,000	6	8	193	0.5	98	76MD1330(1)30(2)	R76MD1330(1)30(2)
400 400	250 250	0.0039 0.0047	3.0	8.0	10.0	7.5 7.5	1,700 1,700	1,360,000 1,360,000	7 8	8 8	163 135	0.6 0.7	98 98	76MD1390(1)30(2) 76MD1470(1)30(2)	R76MD1390(1)30(2) R76MD1470(1)30(2)
400	250	0.0047	3.0	8.0	10.0	7.5 7.5	1,700	1,360,000	10	8	114	0.7	98	76MD1470(1)30(2)	R76MD1560(1)30(2)
400	250	0.0068	4.0	9.0	10.0	7.5	1,700	1,360,000	12	8	94	1.1	88	76MD1680(1)40(2)	R76MD1680(1)40(2)
400	250	0.0082	4.0	9.0	10.0	7.5	1,700	1,360,000	14	8	78	1.3	88	76MD1820(1)40(2)	R76MD1820(1)40(2)
400	250	0.01	4.0	9.0	10.0	7.5	1,700	1,360,000	17	8	64	1.6	88	76MD2100(1)40(2)	R76MD2100(1)40(2)
400	250	0.012	4.0	9.0	10.0	7.5	1,700	1,360,000	20	8	53	1.9	88	76MD2120(1)40(2)	R76MD2120(1)40(2)
400	250	0.015	5.0	10.5	10.0	7.5	1,700	1,360,000	26	8	42	2.4	78		R76MD2150(1)40(2)
400	250	0.018	5.0	10.5	10.0	7.5	1,700	1,360,000	31	8	35	2.7	78		R76MD2180(1)40(2)
400 400	250 250	0.022 0.027	6.0	12.0 12.0	10.5 10.5	7.5 7.5	1,700 1,700	1,360,000 1,360,000	37 46	8 8	29 24	3.2 3.5	69 69		R76MD2220(1)30(2) R76MD2270(1)30(2)
400	250	0.027	4.0	9.0	13.0	10.0	1,500	1,200,000	15	9	64	1.6	79	76MF2100(1)30(2)	R76MF2100(1)00(2)
400	250	0.012	4.0	9.0	13.0	10.0	1,500	1,200,000	18	9	53	1.9	79	76MF2100(1)00(2)	R76MF2120(1)00(2)
400	250	0.015	4.0	9.0	13.0	10.0	1,500	1,200,000	23	9	42	2.4	79	76MF2150(1)30(2)	R76MF2150(1)30(2)
400	250	0.018	4.0	9.0	13.0	10.0	1,500	1,200,000	27	9	35	2.7	79	76MF2180(1)30(2)	R76MF2180(1)30(2)
400	250	0.022	4.0	9.0	13.0	10.0	1,500	1,200,000	33	9	29	3.0	79	76MF2220(1)30(2)	R76MF2220(1)30(2)
VDC	VAC	Сар	Т	н	L	Lead Spacing	dV/dt	Max K <sub>Q</sub>	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET Internal	Customer
		Value	·		_	(S)	(V/µs)	(V²/µs)	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



VDC	VAC	Cap Value (µF)		nensi in mn		Lead Spacing (S)	dV/dt (V/μs)	Max K <sub>0</sub> (V²/μs)	pkr	ESL Lead Length 2x 4 mm	ESR max at 100	I <sub>rms max</sub> (*) at 100 kHz 85°C	Rth	KEMET Internal Part Number	Customer Part Number
		<b>"</b>	Т	Н	L				<b>A</b> <sub>pk</sub>	nH	kHz mΩ	A <sub>rms</sub>	(°C/W)		
400	250	0.027	5.0	11.0	13.0	10.0	1,500	1,200,000	41	9	24	3.5	69	76MF2270(1)30(2)	R76MF2270(1)30(2)
400	250	0.027	4.0	9.0	13.0	10.0	1,500	1,200,000	41	9	24	3.3	79	76MF2270(1)50(2)	R76MF2270(1)50(2)
400	250	0.033	5.0	11.0	13.0	10.0	1,500	1,200,000	50	9	19	3.9	69	76MF2330(1)30(2)	R76MF2330(1)30(2)
400 400	250 250	0.039 0.039	5.0 6.0	11.0 12.0	13.0 13.0	10.0 10.0	1,500 1,500	1,200,000 1,200,000	59 59	9	16 16	4.2 4.4	69 64	76MF2390(1)50(2) 76MF2390(1)30(2)	R76MF2390(1)50(2) R76MF2390(1)30(2)
400	250	0.039	5.0	11.0	13.0	10.0	1,500	1,200,000	71	9	14	4.6	69	76MF2470(1)50(2)	R76MF2470(1)50(2)
400	250	0.047	6.0	12.0	13.0	10.0	1,500	1,200,000	71	9	14	4.8	64	76MF2470(1)30(2)	R76MF2470(1)30(2)
400	250	0.056	6.0	12.0	13.0	10.0	1,500	1,200,000	84	9	20	4.0	64	76MF2560(1)50(2)	R76MF2560(1)50(2)
400	250	0.068	6.0	12.0	13.0	10.0	1,500	1,200,000	102	9	16	4.4	64	76MF2680(1)50(2)	R76MF2680(1)50(2)
400 400	250 250	0.033 0.039	5.0 5.0	11.0 11.0	18.0 18.0	15.0	900 900	720,000	30 35	10 10	19 16	4.1 4.5	60 60	76MI2330(1)00(2)	R76MI2330(1)00(2)
400	250	0.039	5.0	11.0	18.0	15.0 15.0	900	720,000 720,000	42	10	14	4.5 5.0	60	76MI2390(1)30(2) 76MI2470(1)30(2)	R76MI2390(1)30(2) R76MI2470(1)30(2)
400	250	0.056	5.0	11.0	18.0	15.0	900	720,000	50	10	20	4.1	60	76MI2560(1)30(2)	R76MI2560(1)30(2)
400	250	0.068	6.0	12.0	18.0	15.0	900	720,000	61	10	16	4.7	56	76MI2680(1)30(2)	R76MI2680(1)30(2)
400	250	0.068	5.0	11.0	18.0	15.0	900	720,000	61	10	16	4.5	60	76MI2680(1)50(2)	R76MI2680(1)50(2)
400	250	0.082	6.0	12.0	18.0	15.0	900	720,000	74	10	14	5.1	56	76MI2820(1)30(2)	R76MI2820(1)30(2)
400	250	0.1	6.0	12.0	18.0	15.0	900	720,000	90	10	11	5.7	56	76MI3100(1)50(2)	R76MI3100(1)50(2)
400	250 250	0.1 0.1	7.5 9.0	13.5 12.5	18.0 18.0	15.0 15.0	900 900	720,000 720,000	90 90	10 10	11 11	6.0 6.0	51 50	76MI3100(1)30(2) 76MI3100(1)70(2)	R76MI3100(1)30(2) R76MI3100(1)70(2)
400	250	0.12	7.5	13.5		15.0	900	720,000	108	10	13	5.5	50 51	76MI3120(1)30(2)	R76MI3120(1)30(2)
400	250	0.12	9.0	12.5	18.0	15.0	900	720,000	108	10	13	5.5	50	76MI3120(1)70(2)	R76MI3120(1)70(2)
400	250	0.15	7.5	13.5	18.0	15.0	900	720,000	135	10	11	6.1	51	76MI3150(1)50(2)	R76MI3150(1)50(2)
400	250	0.15	8.5	14.5	18.0	15.0	900	720,000	135	10	11	6.3	48	76MI3150(1)30(2)	R76MI3150(1)30(2)
400	250	0.15	13.0	12.0	18.0	15.0	900	720,000	135	10	11	6.5	45	76MI3150(1)70(2)	R76MI3150(1)70(2)
400	250	0.18	8.5	14.5	18.0	15.0	900	720,000	162	10	9	6.9	48	76MI3180(1)50(2)	R76MI3180(1)50(2)
400 400	250 250	0.18 0.18	10.0 13.0	16.0 12.0	18.0 18.0	15.0 15.0	900 900	720,000 720,000	162 162	10 10	9	7.2 7.1	44 45	76MI3180(1)30(2) 76MI3180(1)70(2)	R76MI3180(1)30(2) R76MI3180(1)70(2)
400	250	0.16	10.0	16.0	18.0	15.0	900	720,000	198	10	7	7.1	43	76MI3220(1)30(2)	R76MI3220(1)30(2)
400	250	0.27	10.0	16.0	18.0	15.0	900	720,000	243	10	6	8.8	44	76MI3270(1)50(2)	R76MI3270(1)50(2)
400	250	0.27	11.0	19.0	18.0	15.0	900	720,000	243	10	6	9.2	40	76MI3270(1)30(2)	R76MI3270(1)30(2)
400	250	0.33	11.0	19.0	18.0	15.0	900	720,000	297	10	5	10.2	40	76MI3330(1)50(2)	R76MI3330(1)50(2)
400	250	0.39	11.0	19.0	18.0	15.0	900	720,000	351	10	4	11.0	40	76MI3390(1)50(2)	R76MI3390(1)50(2)
400	250	0.12	6.0	15.0	26.5	22.5	500	400,000	60	16	20	4.8	43	76MN3120(1)30(2)	R76MN3120(1)30(2)
400 400	250 250	0.15 0.18	6.0 6.0	15.0 15.0	26.5 26.5	22.5 22.5	500 500	400,000 400,000	75 90	16 16	16 13	5.4 5.9	43 43	76MN3150(1)30(2) 76MN3180(1)30(2)	R76MN3150(1)30(2) R76MN3180(1)30(2)
400	250	0.18	7.0	16.0	26.5	22.5	500	400,000	110	16	11	6.7	41	76MN3180(1)30(2)	R76MN3220(1)30(2)
400	250	0.22	6.0	15.0	26.5	22.5	500	400,000	110	16	11	6.5	43	76MN3220(1)50(2)	R76MN3220(1)50(2)
400	250	0.27	8.5	17.0	26.5	22.5	500	400,000	135	16	9	7.7	38	76MN3270(1)30(2)	R76MN3270(1)30(2)
400	250	0.27	7.0	16.0	26.5	22.5	500	400,000	135	16	9	7.4	41	76MN3270(1)50(2)	R76MN3270(1)50(2)
400	250	0.33	8.5	17.0		22.5	500	400,000	165	16	7	8.5	38		R76MN3330(1)30(2)
400	250	0.39	8.5	17.0		22.5	500	400,000	195	16	8	8.0	38		R76MN3390(1)50(2)
400 400	250 250	0.39 0.47	10.0	18.5	26.5	22.5 22.5	500 500	400,000 400,000	195 235	16 16	8 7	8.3 9.1	36 36		R76MN3390(1)30(2) R76MN3470(1)30(2)
400	250	0.47	10.0		26.5	22.5	500	400,000	280	16	6	9.1	36		R76MN3560(1)50(2)
400	250	0.56	11.0		26.5	22.5	500	400,000	280	16	6	10.2	34		R76MN3560(1)30(2)
400	250	0.68	11.0		26.5	22.5	500	400,000	340	16	5	11.2	34	76MN3680(1)50(2)	R76MN3680(1)50(2)
400	250	0.68	13.0	22.0		22.5	500	400,000	340	16	4.7	11.7	31	. , , , ,	R76MN3680(1)30(2)
400	250	0.82	13.0	22.0	26.5	22.5	500	400,000	410	16	3.9	12.8	31	76MN3820(1)50(2)	R76MN3820(1)50(2)
VDC	VAC	Сар	Т	н	L	Lead Spacing	dV/dt	Max K <sub>o</sub>	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET Internal	Customer
<b>400</b>	VAU	Value	-	, n	_	(S)	(V/µs)	(V²/µs)̇́	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



			Dim	nensi	one					ESL	ESR max	I <sub>rms max</sub> (*)	Rth		
VDC	VAC	Cap Value (µF)		in mn		Lead Spacing (S)	dV/dt (V/μs)	Max Κ <sub>0</sub> (V²/μs)	pkr	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C		KEMET Internal Part Number	Customer Part Number
			Т	Н	L				A <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
400	250	1	14.5	29.5	26.5	22.5	500	400,000	500	16	6	11.5	27	76MN4100(1)30(2)	R76MN4100(1)30(2)
400	250 250	0.39 0.47	9.0 9.0	17.0 17.0	32.0 32.0	27.5	300 300	240,000 240,000	117	18 18	8 7	8.4 9.2	35 35	76MR3390(1)30(2)	R76MR3390(1)30(2)
400 400	250	0.47	11.0	20.0	32.0	27.5 27.5	300	240,000	141 168	18	6	10.6	35	76MR3470(1)30(2) 76MR3560(1)30(2)	R76MR3470(1)30(2) R76MR3560(1)30(2)
400	250	0.68	11.0	20.0	32.0	27.5	300	240,000	204	18	7	9.5	31	76MR3680(1)30(2)	R76MR3680(1)30(2)
400	250	0.68	24.0	15.0	32.0	27.5	300	240,000	204	18	7	10.2	27	76MR3680(1)L0(2)	R76MR3680(1)L0(2)
400	250	0.82	13.0	22.0	32.0	27.5	300	240,000	246	18	6	10.9	29	76MR3820(1)30(2)	R76MR3820(1)30(2)
400	250	0.82	24.0	15.0	32.0	27.5	300	240,000	246	18	6	11.3	27	76MR3820(1)L0(2)	R76MR3820(1)L0(2)
400 400	250 250	1	13.0 24.0	22.0 15.0	32.0 32.0	27.5 27.5	300 300	240,000 240,000	300	18 18	6 6	11.1 11.5	29 27	76MR4100(1)40(2) 76MR4100(1)L0(2)	R76MR4100(1)40(2) R76MR4100(1)L0(2)
400	250	1.2	14.0	28.0	32.0	27.5	300	240,000	360	18	5	12.0	26	76MR4100(1)L0(2)	R76MR4120(1)40(2)
400	250	1.2	24.0	15.0	32.0	27.5	300	240,000	360	18	5.3	11.8	27	76MR4120(1)L0(2)	R76MR4120(1)L0(2)
400	250	1.5	16.0	30.0	32.0	27.5	300	240,000	450	18	4.2	13.9	25	76MR4150(1)40(2)	R76MR4150(1)40(2)
400	250	1.5	18.0	33.0	32.0	27.5	300	240,000	450	18	4.2	14.3	23	76MR4150(1)30(2)	R76MR4150(1)30(2)
400	250	1.8	16.0	30.0	32.0	27.5	300	240,000	540	18	5.3	12.4	25	76MR4180(1)40(2)	R76MR4180(1)40(2)
400	250	1.8	18.0	33.0	32.0	27.5	300	240,000	540	18	5.3	12.8	23	76MR4180(1)30(2)	R76MR4180(1)30(2)
400 400	250 250	2.2 2.2	18.0 22.0	33.0 37.0	32.0 32.0	27.5 27.5	300 300	240,000 240,000	660 660	18 18	4.3 4.3	14.2 14.9	23 21	76MR4220(1)40(2) 76MR4220(1)30(2)	R76MR4220(1)40(2) R76MR4220(1)30(2)
400	250	2.2	22.0	37.0	32.0	27.5	300	240,000	810	18	7.1	11.7	21	. , , , ,	R76MR4270(1)30(2)
400	250	1	11.0	22.0	41.5	37.5	180	144,000	180	20	6	11.5	27		R76MW4100(1)30(2)
400	250	1	24.0	15.0	41.5	37.5	180	144,000	180	20	6	12.1	24	. , , ,	R76MW4100(1)L0(2)
400	250	1.2	13.0	24.0	41.5	37.5	180	144,000	216	20	5	12.2	25	76MW4120(1)30(2)	R76MW4120(1)30(2)
400	250	1.2	24.0	15.0	41.5	37.5	180	144,000	216	20	5	12.4	24	. ' '	R76MW4120(1)L002)
400	250	1.5	13.0	24.0	41.5	37.5	180	144,000	270	20	4	13.7	25		R76MW4150(1)30(2)
400	250	1.5	24.0 16.0	15.0 28.5	41.5	37.5	180	144,000	270	20	4 5	13.9	24		R76MW4150(1)L0(2)
400 400	250 250	1.8 1.8	24.0	19.0	41.5 41.5	37.5 37.5	180 180	144,000 144,000	324 324	20 20	5.3	12.9 12.8	23 23	. , , , ,	R76MW4180(1)30(2) R76MW4180(1)L0(2)
400	250	2.2	16.0	28.5	41.5	37.5	180	144,000	396	20	4.3	14.3	23		R76MW4220(1)30(2)
400	250	2.2	19.0	32.0	41.5	37.5	180	144,000	396	20	4.3	14.9	21		R76MW4220(1)30(2)
400	250	2.2	24.0	19.0	41.5	37.5	180	144,000	396	20	4.3	14.2	23	76MW4220(1)L0(2)	R76MW4220(1)L0(2)
400	250	2.7	19.0	32.0	41.5	37.5	180	144,000	486	20	7.1	11.7	21	. , , , ,	R76MW4270(1)30(2)
400	250	3.3	19.0	32.0	41.5	37.5	180	144,000	594	20	5.8	12.9	21		R76MW4330(1)30(2)
400 400	250 250	3.9 4.7	20.0	40.0 40.0	41.5 41.5	37.5 37.5	180 180	144,000 144,000	702 846	20	4.9 4.1	14.8 16.2	19 19		R76MW4390(1)30(2) R76MW4470(1)30(2)
400	250	5.6	24.0	44.0	41.5	37.5 37.5	180	144,000	1,008	20 20	3.4	18.4	17	. , , , ,	R76MW4560(1)30(2)
400	250	6.8	30.0	45.0	41.5	37.5	180	144,000	1,224	20	7.0	13.3	16		R76MW4680(1)30(2)
400	250	8.2	30.0	45.0	41.5	37.5	180	144,000	1,476	20	5.8	14.6	16		R76MW4820(1)30(2)
630	250	0.00068	3.0	8.0	10.0	7.5	2,800	3,528,000	2	8	936	0.1	98	76PD0680(1)00(2)	R76PD0680(1)00(2)
630	250	0.00082	3.0	8.0	10.0	7.5	2,800	3,528,000	2	8	776	0.1	98	76PD0820(1)00(2)	R76PD0820(1)00(2)
630	250	0.001	3.0	8.0	10.0	7.5	2,800	3,528,000	3	8	637	0.2	98	76PD1100(1)00(2)	R76PD1100(1)00(2)
630	250	0.0012	3.0	8.0	10.0	7.5	2,800	3,528,000	3	8	531	0.2	98		R76PD1120(1)00(2)
630 630	250 250	0.0015 0.0018	3.0	8.0 8.0	10.0 10.0	7.5 7.5	2,800 2,800	3,528,000 3,528,000	4 5	8 8	424 354	0.2 0.3	98 98	76PD1150(1)00(2) 76PD1180(1)00(2)	R76PD1150(1)00(2) R76PD1180(1)00(2)
630	250	0.0018	3.0	8.0	10.0	7.5	2,800	3,528,000	6	8	289	0.3	98	76PD1180(1)00(2)	R76PD11220(1)00(2)
630	250	0.0027	4.0	9.0	10.0	7.5	2,800	3,528,000	8	8	236	0.4	88	76PD1270(1)40(2)	R76PD1270(1)40(2)
630	250	0.0033	4.0	9.0	10.0	7.5	2,800	3,528,000	9	8	193	0.5	88	76PD1330(1)40(2)	R76PD1330(1)40(2)
630	250	0.0039	4.0	9.0	10.0	7.5	2,800	3,528,000	11	8	163	0.6	88	76PD1390(1)40(2)	R76PD1390(1)40(2)
630	250	0.0047	4.0	9.0	10.0	7.5	2,800	3,528,000	13	8	135	0.7	88	76PD1470(1)40(2)	R76PD1470(1)40(2)
VDC	VAC	Сар	   T	Н	L	Lead Spacing	dV/dt	Max K <sub>0</sub>	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET Internal	Customer
150	TAU	Value	'		_	(S)	(V/µs)	(V²/µs)	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



		Con	Din	nensi	ons	Lood				ESL	ESR max	I <sub>rms max</sub> (*)	Rth	VEMET	Customer
VDC	VAC	Cap Value (µF)		in mn		Lead Spacing (S)	dV/dt (V/μs)	Max K <sub>0</sub> (V²/µs)	pkr	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C		KEMET Internal Part Number	Customer Part Number
			т	Н	ш				A <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
630	250	0.0056	4.0	9.0	10.0	7.5	2,800	3,528,000	16	8	114	0.9	88	76PD1560(1)40(2)	R76PD1560(1)40(2)
630 630	250 250	0.0068 0.0082	5.0	10.5	10.0	7.5 7.5	2,800 2,800	3,528,000 3,528,000	19 23	8 8	94 78	1.1 1.3	78 78	76PD1680(1)40(2) 76PD1820(1)40(2)	R76PD1680(1)40(2) R76PD1820(1)40(2)
630	250	0.002	6.0	12.0	10.5	7.5	2,800	3,528,000	28	8	64	1.6	69	76PD2100(1)30(2)	R76PD2100(1)30(2)
630	250	0.012	6.0	12.0	10.5	7.5	2,800	3,528,000	34	8	53	1.9	69	76PD2120(1)30(2)	R76PD2120(1)30(2)
630	400	0.0033	4.0	9.0	13.0	10.0	4,000	5,040,000	13	9	193	0.8	79	76PF1330(1)00(2)	R76PF1330(1)00(2)
630 630	400 400	0.0039 0.0047	4.0	9.0	13.0 13.0	10.0 10.0	4,000 4,000	5,040,000 5,040,000	16 19	9	163 135	1.0 1.2	79 79	76PF1390(1)00(2) 76PF1470(1)00(2)	R76PF1390(1)00(2) R76PF1470(1)00(2)
630	400	0.0047	4.0	9.0	13.0	10.0	4,000	5,040,000	22	9	114	1.4	79	76PF1470(1)00(2)	R76PF1560(1)00(2)
630	400	0.0068	4.0	9.0	13.0	10.0	4,000	5,040,000	27	9	94	1.6	79	76PF1680(1)00(2)	R76PF1680(1)00(2)
630	400	0.0082	4.0	9.0	13.0	10.0	4,000	5,040,000	33	9	78	1.8	79	76PF1820(1)00(2)	R76PF1820(1)00(2)
630	400	0.01	4.0	9.0	13.0	10.0	4,000	5,040,000	40	9	64	2.0	79	76PF2100(1)50(2)	R76PF2100(1)50(2)
630 630	400 400	0.01 0.012	5.0	11.0 11.0	13.0 13.0	10.0 10.0	4,000	5,040,000 5,040,000	40 48	9	64 53	2.1 2.3	69 69	76PF2100(1)30(2)	R76PF2100(1)30(2)
630	400	0.012	5.0 5.0	11.0	13.0	10.0	4,000 4,000	5,040,000	60	9	42	2.3	69	76PF2120(1)30(2) 76PF2150(1)50(2)	R76PF2120(1)30(2) R76PF2150(1)50(2)
630	400	0.015	6.0	12.0	13.0	10.0	4,000	5,040,000	60	9	42	2.7	64	76PF2150(1)30(2)	R76PF2150(1)30(2)
630	400	0.018	5.0	11.0	13.0	10.0	4,000	5,040,000	72	9	35	2.9	69	76PF2180(1)50(2)	R76PF2180(1)50(2)
630	400	0.018	6.0	12.0	13.0	10.0	4,000	5,040,000	72	9	35	3.0	64	76PF2180(1)30(2)	R76PF2180(1)30(2)
630	400	0.022	6.0	12.0	13.0	10.0	4,000	5,040,000	88	9	29	3.3	64	76PF2220(1)30(2)	R76PF2220(1)30(2)
630 630	400 400	0.027 0.012	6.0 5.0	12.0 11.0	13.0 18.0	10.0 15.0	4,000 3,000	5,040,000 3,780,000	108 36	9 10	24 53	3.6 2.5	64 60	76PF2270(1)50(2) 76PI2120(1)00(2)	R76PF2270(1)50(2) R76PI2120(1)00(2)
630	400	0.012	5.0	11.0	18.0	15.0	3,000	3,780,000	45	10	42	2.8	60	76PI2150(1)00(2)	R76PI2150(1)00(2)
630	400	0.018	5.0	11.0	18.0	15.0	3,000	3,780,000	54	10	35	3.1	60	76PI2180(1)00(2)	R76PI2180(1)00(2)
630	400	0.022	5.0	11.0	18.0	15.0	3,000	3,780,000	66	10	29	3.4	60	76PI2220(1)30(2)	R76PI2220(1)30(2)
630	400	0.027	5.0	11.0	18.0	15.0	3,000	3,780,000	81	10	24	3.8	60	76PI2270(1)30(2)	R76PI2270(1)30(2)
630 630	400 400	0.033 0.033	6.0 5.0	12.0 11.0	18.0 18.0	15.0 15.0	3,000 3,000	3,780,000 3,780,000	99 99	10 10	19 19	4.3 4.1	56 60	76PI2330(1)30(2) 76PI2330(1)50(2)	R76PI2330(1)30(2) R76PI2330(1)50(2)
630	400	0.033	6.0	12.0	18.0	15.0	3,000	3,780,000	117	10	16	4.1	56	76PI2390(1)30(2)	R76PI2390(1)30(2)
630	400	0.047	6.0	12.0	18.0	15.0	3,000	3,780,000	141	10	14	5.1	56	76PI2470(1)50(2)	R76PI2470(1)50(2)
630	400	0.047	7.5	13.5	18.0	15.0	3,000	3,780,000	141	10	14	5.4	51	76PI2470(1)30(2)	R76PI2470(1)30(2)
630	400	0.047	9.0	12.5	18.0	15.0	3,000	3,780,000	141	10	14	5.5	50	76PI2470(1)70(2)	R76PI2470(1)70(2)
630 630	400 400	0.056 0.056	7.5 9.0	13.5 12.5	18.0 18.0	15.0 15.0	3,000 3,000	3,780,000 3,780,000	168 168	10 10	20 20	4.5 4.5	51 50	76PI2560(1)30(2) 76PI2560(1)70(2)	R76PI2560(1)30(2)
630	400	0.056	7.5	13.5	18.0	15.0	3,000	3,780,000	204	10	16	4.5	51	76PI2680(1)50(2)	R76PI2560(1)70(2) R76PI2680(1)50(2)
630	400	0.068	8.5	14.5	18.0	15.0	3,000	3,780,000	204	10	16	5.1	48	76PI2680(1)30(2)	R76PI2680(1)30(2)
630	400	0.068	9.0	12.5	18.0	15.0	3,000	3,780,000	204	10	16	5.0	50	76PI2680(1)70(2)	R76PI2680(1)70(2)
630	400	0.082	7.5	13.5	18.0	15.0	3,000	3,780,000	246	10	14	5.4	51	76PI2820(1)50(2)	R76PI2820(1)50(2)
630	400	0.082	8.5	14.5	18.0	15.0	3,000	3,780,000 3.780.000	246	10	14	5.6	48	76PI2820(1)30(2)	R76PI2820(1)30(2)
630 630	400 400	0.082 0.1	13.0 8.5	12.0 14.5	18.0 18.0	15.0 15.0	3,000 3,000	3,780,000	246 300	10 10	14 11	5.7 6.1	45 48	76PI2820(1)70(2) 76PI3100(1)50(2)	R76PI2820(1)70(2) R76PI3100(1)50(2)
630	400	0.1		16.0	18.0	15.0	3,000	3,780,000	300	10	11	6.4	44	76PI3100(1)30(2)	R76PI3100(1)30(2)
630	400	0.12		16.0	18.0	15.0	3,000	3,780,000	360	10	13	5.8	44	76PI3120(1)50(2)	R76PI3120(1)50(2)
630	400	0.12	11.0	19.0		15.0	3,000	3,780,000	360	10	13	6.1	40	76PI3120(1)30(2)	R76PI3120(1)30(2)
630	400	0.047	6.0	15.0		22.5	1,500	1,890,000	71	16	14	5.8	43	76PN2470(1)00(2)	R76PN2470(1)00(2)
630 630	400 400	0.056 0.068	6.0 6.0	15.0 15.0	26.5 26.5	22.5 22.5	1,500 1,500	1,890,000 1,890,000	84 102	16 16	20 16	4.8 5.3	43 43	76PN2560(1)00(2) 76PN2680(1)00(2)	R76PN2560(1)00(2) R76PN2680(1)00(2)
630	400	0.082	6.0	15.0	26.5	22.5	1,500	1,890,000	123	16	14	5.8	43	76PN2820(1)30(2)	R76PN2820(1)30(2)
630	400	0.1	6.0		26.5	22.5	1,500	1,890,000	150	16	11	6.4	43		R76PN3100(1)30(2)
VDC	VAC	Сар	Т	н	L	Lead Spacing	dV/dt	Max K₀	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET Internal	Customer
	IAU	Value	'		_	(S)	(V/µs)	(V²/µs)	I <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



			Din	nensi	one					ESL	ESR max	I <sub>rms max</sub> (*)	Rth		
VDC	VAC	Cap Value (µF)		in mn		Lead Spacing (S)	dV/dt (V/μs)	Max Κ (V²/μs)	pkr	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C		KEMET Internal Part Number	Customer Part Number
			Т	Н	L				A <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
630	400	0.12	6.0	15.0	26.5	22.5	1,500	1,890,000	180	16	20	4.8	43	76PN3120(1)50(2)	R76PN3120(1)50(2)
630 630	400 400	0.12 0.15	7.0 7.0	16.0 16.0	26.5 26.5	22.5 22.5	1,500 1,500	1,890,000 1.890.000	180 225	16 16	20 16	4.9 5.5	41 41	76PN3120(1)30(2) 76PN3150(1)50(2)	R76PN3120(1)30(2) R76PN3150(1)50(2)
630	400	0.15	8.5	17.0	26.5	22.5	1,500	1,890,000	225	16	16	5.7	38	76PN3150(1)30(2)	R76PN3150(1)30(2)
630	400	0.18	8.5	17.0	26.5	22.5	1,500	1,890,000	270	16	13	6.3	38	76PN3180(1)30(2)	R76PN3180(1)30(2)
630	400	0.22	8.5	17.0	26.5	22.5	1,500	1,890,000	330	16	11	6.9	38	76PN3220(1)50(2)	R76PN3220(1)50(2)
630 630	400 400	0.22 0.27	10.0 10.0	18.5 18.5	26.5 26.5	22.5 22.5	1,500 1,500	1,890,000 1,890,000	330 405	16 16	11 9	7.2 7.9	36 36	76PN3220(1)30(2) 76PN3270(1)50(2)	R76PN3220(1)30(2) R76PN3270(1)50(2)
630	400	0.27	11.0	20.0	26.5	22.5	1,500	1,890,000	405	16	9	8.2	34	76PN3270(1)30(2)	R76PN3270(1)30(2)
630	400	0.33	11.0	20.0	26.5	22.5	1,500	1,890,000	495	16	7	9.0	34	76PN3330(1)30(2)	R76PN3330(1)30(2)
630	400	0.39	11.0	20.0	26.5	22.5	1,500	1,890,000	585	16	8	8.5	34	76PN3390(1)50(2)	R76PN3390(1)50(2)
630 630	400 400	0.39 0.47	13.0 13.0	22.0	26.5 26.5	22.5 22.5	1,500 1,500	1,890,000 1,890,000	585 705	16 16	8 7	8.8 9.7	31 31	76PN3390(1)30(2) 76PN3470(1)50(2)	R76PN3390(1)30(2) R76PN3470(1)50(2)
630	400	0.56	14.5	29.5	26.5	22.5	1,500	1,890,000	840	16	6	11.4	27	76PN3560(1)30(2)	R76PN3560(1)30(2)
630	400	0.15	9.0	17.0	32.0	27.5	900	1,134,000	135	18	16	6.0	35	76PR3150(1)30(2)	R76PR3150(1)30(2)
630	400	0.18	9.0	17.0	32.0	27.5	900	1,134,000	162	18	13	6.6	35	76PR3180(1)30(2)	R76PR3180(1)30(2)
630 630	400 400	0.22 0.27	9.0 9.0	17.0 17.0	32.0 32.0	27.5 27.5	900 900	1,134,000 1,134,000	198 243	18 18	11 9	7.3 8.0	35 35	76PR3220(1)30(2) 76PR3270(1)30(2)	R76PR3220(1)30(2) R76PR3270(1)30(2)
630	400	0.27	11.0	20.0	32.0	27.5	900	1,134,000	297	18	7	9.4	31	76PR3330(1)40(2)	R76PR3330(1)40(2)
630	400	0.39	11.0	20.0	32.0	27.5	900	1,134,000	351	18	8	8.8	31	76PR3390(1)30(2)	R76PR3390(1)30(2)
630	400	0.39	24.0	15.0	32.0	27.5	900	1,134,000	351	18	8	9.5	27	76PR3390(1)L0(2)	R76PR3390(1)L0(2)
630	400	0.47	13.0	22.0	32.0	27.5	900	1,134,000	423	18	7	10.1	29	76PR3470(1)30(2)	R76PR3470(1)30(2)
630 630	400 400	0.47 0.56	24.0 13.0	15.0 22.0	32.0 32.0	27.5 27.5	900 900	1,134,000 1,134,000	423 504	18 18	7 6	10.4 11.0	27 29	76PR3470(1)L0(2) 76PR3560(1)30(2)	R76PR3470(1)L0(2) R76PR3560(1)30(2)
630	400	0.56	24.0	15.0	32.0	27.5	900	1,134,000	504	18	6	11.4	27	76PR3560(1)L0(2)	R76PR3560(1)L0(2)
630	400	0.68	13.0	25.0	32.0	27.5	900	1,134,000	612	18	7	10.1	28	76PR3680(1)40(2)	R76PR3680(1)40(2)
630	400	0.68	24.0	15.0	32.0	27.5	900	1,134,000	612	18	7	10.2	27	76PR3680(1)L0(2)	R76PR3680(1)L0(2)
630	400	0.82	14.0	28.0	32.0	27.5	900	1,134,000	738	18	6	11.5	26	76PR3820(1)30(2)	R76PR3820(1)30(2)
630 630	400 400	1	16.0 18.0	30.0	32.0 32.0	27.5 27.5	900 900	1,134,000 1,134,000	900	18 18	6 5.6	12.1 12.5	25 23	76PR4100(1)40(2) 76PR4100(1)30(2)	R76PR4100(1)40(2) R76PR4100(1)30(2)
630	400	1.2	18.0	33.0	32.0	27.5	900	1,134,000	1,080	18	5.3	12.8	23	76PR4120(1)30(2)	R76PR4120(1)30(2)
630	400	1.5	22.0	37.0	32.0	27.5	900	1,134,000	1,350	18	4.2	15.1	21	76PR4150(1)30(2)	R76PR4150(1)30(2)
630	400	1.8	22.0	37.0	32.0	27.5	900	1,134,000	1,620	18	5.3	13.5	21	76PR4180(1)30(2)	R76PR4180(1)30(2)
630 630	400 400	0.33 0.39	11.0 11.0	22.0	41.5 41.5	37.5 37.5	450 450	567,000 567,000	149 176	20 20	7 8	10.1 9.5	27 27	76PW3330(1)30(2) 76PW3390(1)30(2)	R76PW3330(1)30(2) R76PW3390(1)30(2)
630	400	0.39	11.0	22.0	41.5	37.5 37.5	450	567,000	212	20	7	10.4	27	76PW3470(1)30(2)	R76PW3470(1)30(2)
630	400	0.56	11.0	22.0	41.5	37.5	450	567,000	252	20	6	11.4	27	76PW3560(1)30(2)	R76PW3560(1)30(2)
630	400	0.68	11.0	22.0	41.5	37.5	450	567,000	306	20	7	10.3	27		R76PW3680(1)30(2)
630	400	0.68	24.0	15.0	41.5	37.5	450	567,000	306	20	7	10.8	24		R76PW3680(1)L0(2)
630 630	400 400	0.82 0.82		24.0	41.5	37.5 37.5	450 450	567,000 567,000	369 369	20 20	6 6	11.7 11.9	25 24		R76PW3820(1)30(2) R76PW3820(1)L0(2)
630	400	1		28.5		37.5	450	567,000	450	20	6	12.6	23		R76PW4100(1)30(2)
630	400	1	24.0	15.0	41.5	37.5	450	567,000	450	20	6	12.1	24	76PW4100(1)L0(2)	R76PW4100(1)L0(2)
630	400	1.2		28.5		37.5	450	567,000	540	20	5	12.9	23		
630 630	400 400	1.2 1.5		19.0 28.5		37.5 37.5	450 450	567,000 567,000	540 675	20 20	5 4	12.8 14.5	23 23	76PW4120(1)L0(2) 76PW4150(1)30(2)	R76PW4120(1)L0(2) R76PW4150(1)30(2)
630	400	1.5	24.0	19.0		37.5 37.5	450 450	567,000	675	20	4	14.5	23	76PW4150(1)30(2)	R76PW4150(1)30(2)
630	400	1.8			41.5	37.5	450	567,000	810	20	5.3	13.5	21		R76PW4180(1)30(2)
VDC	VAC	Сар	Т	н	L	Lead Spacing	dV/dt	Max K₀	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET Internal	Customer
100	TAU	Value	'	"	_ L	(S)	(V/µs)	(V²/µs)	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



VDC	VAC	Cap Value		nensi in mn		Lead Spacing	dV/dt	Max K	l <sub>pkr</sub>	ESL Lead	ESR max	I <sub>rms max</sub> (*)	Rth	KEMET Internal	Customer Part
		(μ <b>F</b> )				(S)	(V/µs)	(V²/µs)		Length 2x 4 mm	100 kHz	100 kHz 85°C		Part Number	Number
			Т	Н	L				A <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
630	400	2.2	20.0	40.0	41.5	37.5	450	567,000	990	20	4.3	15.7	19	76PW4220(1)30(2)	R76PW4220(1)30(2)
630	400	2.7	20.0	40.0	41.5	37.5	450	567,000	1,215	20	7.1	12.3	19	76PW4270(1)30(2)	R76PW4270(1)30(2)
630	400	3.3	24.0	44.0	41.5	37.5	450	567,000	1,485	20	5.8	14.2	17		R76PW4330(1)30(2)
630	400	3.9	30.0	45.0	41.5	37.5	450	567,000	1,755	20	4.9	16.0	16		R76PW4390(1)30(2)
1,000 1,000	400 400	0.00022 0.00027	3.0	8.0 8.0	10.0 10.0	7.5 7.5	6,000 6,000	12,000,000 12,000,000	1 2	8 8	2,894 2,358	0.1 0.1	98 98		R76QD0220(1)00(2) R76QD0270(1)00(2)
1,000	400	0.00027	3.0	8.0	10.0	7.5	6,000	12,000,000	2	8	1,929	0.1	98	76QD0270(1)00(2)	R76QD0270(1)00(2)
1,000	400	0.00039	3.0	8.0	10.0	7.5	6,000	12,000,000	2	8	1,632	0.1	98	76QD0390(1)00(2)	
1,000	400	0.00047	3.0	8.0	10.0	7.5	6,000	12,000,000	3	8	1,355	0.1	98	76QD0470(1)00(2)	R76QD0470(1)00(2)
1,000	400	0.00056	3.0	8.0	10.0	7.5	6,000	12,000,000	3	8	1,137	0.1	98	76QD0560(1)00(2)	
1,000	400	0.00068	4.0	9.0	10.0	7.5	6,000	12,000,000	4	8	936	0.2	88	76QD0680(1)40(2)	R76QD0680(1)40(2)
1,000	400	0.00082	4.0	9.0	10.0	7.5	6,000	12,000,000	5	8	776	0.2	88	76QD0820(1)40(2)	
1,000 1,000	400 400	0.001 0.0012	4.0 4.0	9.0 9.0	10.0 10.0	7.5 7.5	6,000 6,000	12,000,000	6 7	8 8	637 531	0.3 0.3	88 88	76QD1100(1)40(2) 76QD1120(1)40(2)	R76QD1100(1)40(2) R76QD1120(1)40(2)
1,000	400	0.0012	5.0	10.5	10.0	7.5 7.5	6,000	12,000,000	9	8	424	0.3	78	76QD1120(1)40(2)	R76QD1120(1)40(2)
1,000	400	0.0018	5.0	10.5	10.0	7.5	6,000	12,000,000	11	8	354	0.5	78	76QD1180(1)40(2)	R76QD1180(1)40(2)
1,000	400	0.0022	5.0	10.5	10.0	7.5	6,000	12,000,000	13	8	289	0.6	78	76QD1220(1)40(2)	R76QD1220(1)40(2)
1,000	400	0.0027	6.0	12.0	10.5	7.5	6,000	12,000,000	16	8	236	0.7	69	76QD1270(1)00(2)	R76QD1270(1)00(2)
1,000	400	0.0033	6.0	12.0	10.5	7.5	6,000	12,000,000	20	8	193	0.8	69	76QD1330(1)00(2)	R76QD1330(1)00(2)
1,000	600	0.00047	4.0	9.0	13.0	10.0	6,500	13,000,000	3	9	1,355	0.2	79	76QF0470(1)00(2)	R76QF0470(1)00(2)
1,000	600	0.00056	4.0	9.0	13.0	10.0	6,500	13,000,000	4	9	1,137	0.2	79	76QF0560(1)00(2)	R76QF0560(1)00(2)
1,000 1,000	600 600	0.00068 0.00082	4.0 4.0	9.0 9.0	13.0 13.0	10.0 10.0	6,500 6,500	13,000,000	4 5	9 9	936 776	0.3 0.3	79 79	76QF0680(1)00(2) 76QF0820(1)00(2)	R76QF0680(1)00(2) R76QF0820(1)00(2)
1,000	600	0.00082	4.0	9.0	13.0	10.0	6,500	13,000,000	7	9	637	0.3	79	76QF0820(1)00(2)	R76QF1100(1)00(2)
1,000	600	0.001	4.0	9.0	13.0	10.0	6,500	13,000,000	8	9	531	0.5	79	76QF1120(1)00(2)	R76QF1120(1)00(2)
1,000	600	0.0015	4.0	9.0	13.0	10.0	6,500	13,000,000	10	9	424	0.6	79	76QF1150(1)00(2)	R76QF1150(1)00(2)
1,000	600	0.0018	4.0	9.0	13.0	10.0	6,500	13,000,000	12	9	354	0.7	79	76QF1180(1)00(2)	R76QF1180(1)00(2)
1,000	600	0.0022	4.0	9.0	13.0	10.0	6,500	13,000,000	14	9	289	0.8	79	76QF1220(1)00(2)	R76QF1220(1)00(2)
1,000	600	0.0027	4.0	9.0	13.0	10.0	6,500	13,000,000	18	9	236	1.0	79	76QF1270(1)00(2)	R76QF1270(1)00(2)
1,000	600	0.0033	4.0	9.0	13.0	10.0	6,500	13,000,000	21	9	193	1.1	79 70	76QF1330(1)30(2)	R76QF1330(1)30(2)
1,000 1,000	600 600	0.0039 0.0039	4.0 5.0	9.0 11.0	13.0 13.0	10.0 10.0	6,500 6,500	13,000,000	25 25	9	163 163	1.2 1.3	79 69	76QF1390(1)50(2) 76QF1390(1)30(2)	R76QF1390(1)50(2) R76QF1390(1)30(2)
1,000	600	0.0039	4.0	9.0	13.0	10.0	6,500	13,000,000	31	9	135	1.3	79	76QF1470(1)50(2)	R76QF1470(1)50(2)
1,000	600	0.0047	5.0	11.0	13.0	10.0	6,500	13,000,000	31	9	135	1.5	69	76QF1470(1)30(2)	R76QF1470(1)30(2)
1,000	600	0.0056	4.0	9.0	13.0	10.0	6,500	13,000,000	36	9	114	1.5	79	76QF1560(1)50(2)	R76QF1560(1)50(2)
1,000	600	0.0056	6.0	12.0	13.0	10.0	6,500	13,000,000	36	9	114	1.7	64	76QF1560(1)30(2)	R76QF1560(1)30(2)
1,000	600	0.0068	4.0	9.0	13.0	10.0	6,500	13,000,000	44	9	94	1.6	79	76QF1680(1)50(2)	R76QF1680(1)50(2)
1,000	600	0.0068	6.0	12.0	13.0	10.0	6,500	13,000,000	44	9	94	1.8	64	76QF1680(1)30(2)	R76QF1680(1)30(2)
1,000	600	0.0082	5.0	11.0	13.0	10.0	6,500	13,000,000	53 65	9	78 64	1.9	69 69	76QF1820(1)50(2)	R76QF1820(1)50(2)
1,000 1,000	600 600	0.01 0.012	5.0 5.0	11.0 11.0	13.0 13.0	10.0 10.0	6,500 6,500	13,000,000 13,000,000	65 78	9	64 53	2.1 2.3	69	76QF2100(1)50(2)	R76QF2100(1)50(2) R76QF2120(1)50(2)
1,000	600	0.012	6.0	12.0	13.0	10.0	6,500	13,000,000	98	9	42	2.3	64	76QF2150(1)50(2)	R76QF2150(1)50(2)
1,000	600	0.0082	4.0	10.0	18.0	15.0	3,500	7,000,000	29	10	78	2.0	65	76QI1820(1)40(2)	R76QI1820(1)40(2)
1,000	600	0.0082	5.0	11.0	18.0	15.0	3,500	7,000,000	29	10	78	2.1	60	76QI1820(1)00(2)	R76QI1820(1)00(2)
1,000	600	0.01	4.0	10.0	18.0	15.0	3,500	7,000,000	35	10	64	2.2	65	76QI2100(1)40(2)	R76QI2100(1)40(2)
1,000	600	0.01	5.0	11.0	18.0	15.0	3,500	7,000,000	35	10	64	2.3	60	76QI2100(1)30(2)	R76QI2100(1)30(2)
1,000	600	0.012	5.0	11.0	18.0	15.0	3,500	7,000,000	42	10	53	2.5	60	76QI2120(1)30(2)	R76QI2120(1)30(2)
1,000	600	0.015	5.0	11.0	18.0	15.0	3,500	7,000,000	53	10 Lead	42 at	2.8 <b>at</b>	60	76QI2150(1)40(2)	R76QI2150(1)40(2)
VDC	VAC	Сар	Т	Н		Lead Spacing	dV/dt	Max K	A <sub>pk</sub>	Length 2x 4 mm	100 kHz	100 kHz 85°C	(°C/W)	KEMET Internal	Customer
VDC	VAC	Value	1	п	L	Spacing (S)	(V/µs)	(V²/μs)̈́	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



		Cap		nensi		Lead	dV/dt	Max K	l <sub>pkr</sub>	ESL Lead	ESR max	I <sub>rms max</sub> (*)	Rth	KEMET	Customer
VDC	VAC	Value (µF)		in mn		Spacing (S)	(V/µs)	(V²/μs)	ркі	Length 2x 4 mm	100 kHz	100 kHz 85°C		Internal Part Number	Part Number
			Т	н	L				A <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
1,000	600	0.018	5.0	11.0	18.0	15.0	3,500	7,000,000	63	10	35	3.1	60	76QI2180(1)40(2)	R76QI2180(1)40(2)
1,000	600	0.022	6.0	12.0	18.0	15.0	3,500	7,000,000	77	10	29	3.5	56	76QI2220(1)40(2)	R76QI2220(1)40(2)
1,000 1,000	600 600	0.022 0.027	9.0	12.5 12.0	18.0 18.0	15.0 15.0	3,500 3,500	7,000,000 7,000,000	77 95	10 10	29 24	3.7 3.9	50 56	76QI2220(1)70(2) 76QI2270(1)50(2)	R76QI2220(1)70(2) R76QI2270(1)50(2)
1,000	600	0.027	7.5	13.5	18.0	15.0	3,500	7,000,000	95	10	24	4.1	51	76QI2270(1)40(2)	R76QI2270(1)40(2)
1,000	600	0.027	9.0	12.5	18.0	15.0	3,500	7,000,000	95	10	24	4.1	50	76QI2270(1)70(2)	R76QI2270(1)70(2)
1,000	600	0.033	6.0	12.0	18.0	15.0	3,500	7,000,000	116	10	19	4.3	56	76QI2330(1)50(2)	R76QI2330(1)50(2)
1,000	600	0.033	7.5	13.5	18.0	15.0	3,500	7,000,000	116	10	19	4.5	51	76QI2330(1)40(2)	R76QI2330(1)40(2)
1,000 1,000	600 600	0.033 0.039	13.0 7.5	12.0 13.5	18.0 18.0	15.0 15.0	3,500 3,500	7,000,000 7,000,000	116 137	10 10	19 16	4.8 4.9	45 51	76QI2330(1)70(2) 76QI2390(1)50(2)	R76QI2330(1)70(2) R76QI2390(1)50(2)
1,000	600	0.039	8.5	14.5	18.0	15.0	3,500	7,000,000	137	10	16	5.1	48	76QI2390(1)40(2)	R76QI2390(1)40(2)
1,000	600	0.047	7.5	13.5	18.0	15.0	3,500	7,000,000	165	10	14	5.4	51	76QI2470(1)50(2)	R76QI2470(1)50(2)
1,000	600	0.047	8.5	14.5	18.0	15.0	3,500	7,000,000	165	10	14	5.6	48	76QI2470(1)40(2)	R76QI2470(1)40(2)
1,000	600	0.056	8.5	14.5	18.0	15.0	3,500	7,000,000	196	10	20	4.6	48	76QI2560(1)50(2)	R76QI2560(1)50(2)
1,000	600	0.068	8.5	14.5	18.0	15.0	3,500	7,000,000	238	10	16	5.1	48	76QI2680(1)50(2)	R76QI2680(1)50(2)
1,000 1,000	600 600	0.082 0.1	10.0 11.0	16.0 19.0	18.0 18.0	15.0 15.0	3,500 3,500	7,000,000 7,000,000	287 350	10 10	14 11	5.8 6.7	44 40	76QI2820(1)50(2) 76QI3100(1)50(2)	R76QI2820(1)50(2) R76QI3100(1)50(2)
1,000	600	0.12	11.0	19.0	18.0	15.0	3,500	7,000,000	420	10	13	6.1	40	76QI3120(1)50(2)	R76QI3120(1)50(2)
1,000	600	0.027	6.0	15.0	26.5	22.5	2,100	4,200,000	57	16	24	4.4	43	76QN2270(1)00(2)	R76QN2270(1)00(2)
1,000	600	0.033	6.0	15.0	26.5	22.5	2,100	4,200,000	69	16	19	4.9	43	76QN2330(1)30(2)	R76QN2330(1)30(2)
1,000	600	0.039	6.0	15.0	26.5	22.5	2,100	4,200,000	82	16	16	5.3	43	76QN2390(1)30(2)	R76QN2390(1)30(2)
1,000	600	0.047	6.0	15.0	26.5	22.5	2,100	4,200,000	99	16	14	5.8	43		R76QN2470(1)50(2)
1,000	600	0.047	7.0	16.0	26.5	22.5	2,100	4,200,000	99	16	14	6.0	41		R76QN2470(1)30(2)
1,000 1,000	600 600	0.056 0.056	6.0 7.0	15.0 16.0	26.5 26.5	22.5 22.5	2,100 2,100	4,200,000 4,200,000	118 118	16 16	20 20	4.8 4.9	43 41		R76QN2560(1)50(2) R76QN2560(1)30(2)
1,000	600	0.068	7.0	16.0	26.5	22.5	2,100	4,200,000	143	16	16	5.5	41		R76QN2680(1)50(2)
1,000	600	0.068	8.5	17.0	26.5	22.5	2,100	4,200,000	143	16	16	5.6	38	76QN2680(1)30(2)	R76QN2680(1)30(2)
1,000	600	0.082	7.0	16.0	26.5	22.5	2,100	4,200,000	172	16	14	6.0	41	76QN2820(1)50(2)	R76QN2820(1)50(2)
1,000	600	0.082	10.0	18.5	26.5	22.5	2,100	4,200,000	172	16	14	6.4	36	76QN2820(1)30(2)	R76QN2820(1)30(2)
1,000	600	0.1	8.5	17.0	26.5	22.5	2,100	4,200,000	210	16	11	6.8	38	76QN3100(1)50(2) 76QN3100(1)30(2)	R76QN3100(1)50(2)
1,000 1,000	600 600	0.1 0.12	10.0 8.5	18.5 17.0	26.5 26.5	22.5 22.5	2,100 2,100	4,200,000 4,200,000	210 252	16 16	11 20	7.1 5.1	36 38		R76QN3100(1)30(2) R76QN3120(1)50(2)
1,000	600	0.12	11.0	20.0	26.5	22.5	2,100	4,200,000	252	16	20	5.4	34	76QN3120(1)30(2)	R76QN3120(1)30(2)
1,000	600	0.15	10.0	18.5	26.5	22.5	2,100	4,200,000	315	16	16	5.9	36		R76QN3150(1)50(2)
1,000	600	0.15	13.0	22.0	26.5	22.5	2,100	4,200,000	315	16	16	6.3	31	76QN3150(1)30(2)	R76QN3150(1)30(2)
1,000	600	0.18	11.0	20.0	26.5	22.5	2,100	4,200,000	378	16	13	6.7	34		R76QN3180(1)50(2)
1,000	600	0.22	11.0	20.0	26.5	22.5	2,100	4,200,000	462	16	11	7.4	34		R76QN3220(1)50(2)
1,000 1,000	600 600	0.27 0.33	13.0 13.0	22.0	26.5 26.5	22.5 22.5	2,100 2,100	4,200,000 4,200,000	567 693	16 16	9 7	8.5 9.4	31 31	76QN3270(1)50(2) 76QN3330(1)50(2)	R76QN3270(1)50(2) R76QN3330(1)50(2)
1,000	600	0.33		29.5	26.5	22.5	2,100	4,200,000	819	16	8	9.4	27		R76QN3390(1)50(2)
1,000	600	0.1	9.0	17.0		27.5	1,000	2,000,000	100	18	11	7.2	35		R76QR3100(1)40(2)
1,000	600	0.12	9.0	17.0	32.0	27.5	1,000	2,000,000	120	18	20	5.4	35	76QR3120(1)40(2)	R76QR3120(1)40(2)
1,000	600	0.15	11.0	20.0	32.0	27.5	1,000	2,000,000	150	18	16	6.3	31	76QR3150(1)30(2)	R76QR3150(1)30(2)
1,000	600	0.18	13.0	22.0		27.5	1,000	2,000,000	180	18	13	7.2	29		R76QR3180(1)30(2)
1,000 1,000	600 600	0.18 0.22	24.0 13.0	15.0 22.0	32.0 32.0	27.5 27.5	1,000 1,000	2,000,000 2,000,000	180 220	18 18	13 11	7.5 8.0	27 29	76QR3180(1)L0(2) 76QR3220(1)30(2)	R76QR3180(1)L0(2) R76QR3220(1)30(2)
1,000	600	0.22	24.0	15.0	32.0	27.5	1,000	2,000,000	220	18	11	8.2	27	76QR3220(1)30(2)	R76QR3220(1)30(2)
1,000	600	0.27		25.0		27.5	1,000	2,000,000	270	18	9	9.0	28		R76QR3270(1)40(2)
VDC	VAC	Сар	т			Lead	dV/dt	Max K	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET	Customer
ADC	VAC	Value	1	Н	L	Spacing (S)	(V/µs)	(V²/µs)	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Internal Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



			Dim	nensi	one					ESL	ESR max	I <sub>rms max</sub> (*)	Rth		
VDC	VAC	Cap Value (µF)		n mn		Lead Spacing (S)	dV/dt (V/μs)	Max K <sub>0</sub> (V²/μs)	pkr	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C		KEMET Internal Part Number	Customer Part Number
			Т	Н	П				A <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
1,000	600	0.27	24.0	15.0	32.0	27.5	1,000	2,000,000	270	18	9	9.1	27	76QR3270(1)L0(2)	R76QR3270(1)L0(2)
1,000	600	0.33	14.0	28.0		27.5	1,000	2,000,000	330	18	7	10.3	26	76QR3330(1)30(2)	R76QR3330(1)30(2)
1,000 1,000	600 600	0.39 0.47	18.0 18.0	33.0 33.0	32.0 32.0	27.5 27.5	1,000 1,000	2,000,000 2,000,000	390 470	18 18	8 7	10.3 11.3	23 23	76QR3390(1)30(2) 76QR3470(1)30(2)	R76QR3390(1)30(2) R76QR3470(1)30(2)
1,000	600	0.47	22.0	37.0	32.0	27.5	1,000	2,000,000	560	18	6	13.0	23	76QR3560(1)30(2)	R76QR3560(1)30(2)
1,000	600	0.68	22.0	37.0	32.0	27.5	1,000	2,000,000	680	18	7	11.7	21	76QR3680(1)30(2)	R76QR3680(1)30(2)
1,000	600	0.18	11.0	22.0	41.5	37.5	500	1,000,000	90	20	13	7.5	27	76QW3180(1)30(2)	R76QW3180(1)30(2)
1,000	600	0.22	11.0	22.0	41.5	37.5	500	1,000,000	110	20	11	8.2	27		R76QW3220(1)30(2)
1,000	600	0.27	13.0	24.0	41.5	37.5	500	1,000,000	135	20	9	9.5	25		R76QW3270(1)30(2)
1,000 1,000	600 600	0.27 0.33	24.0 13.0	15.0 24.0	41.5 41.5	37.5 37.5	500 500	1,000,000 1,000,000	135 165	20 20	9 7	9.6 10.5	24 25	76QW3270(1)L0(2) 76QW3330(1)30(2)	R76QW3270(1)L0(2) R76QW3330(1)30(2)
1,000	600	0.33	24.0	15.0	41.5	37.5	500	1,000,000	165	20	7	10.5	24	76QW3330(1)S0(2)	R76QW3330(1)L0(2)
1,000	600	0.39	16.0	28.5	41.5	37.5	500	1,000,000	195	20	8	10.4	23	76QW3390(1)30(2)	R76QW3390(1)30(2)
1,000	600	0.39	24.0	15.0	41.5	37.5	500	1,000,000	195	20	8	10.0	24	76QW3390(1)L0(2)	R76QW3390(1)L0(2)
1,000	600	0.47	16.0	28.5	41.5	37.5	500	1,000,000	235	20	7	11.4	23		R76QW3470(1)30(2)
1,000	600	0.47	24.0	19.0	41.5	37.5	500	1,000,000	235	20	7	11.4	23		R76QW3470(1)L0(2)
1,000	600 600	0.56 0.56	16.0 24.0	28.5 19.0	41.5 41.5	37.5 37.5	500 500	1,000,000	280 280	20 20	6 6	12.5 12.4	23 23		R76QW3560(1)30(2)
1,000 1,000	600	0.56	19.0	32.0	41.5	37.5 37.5	500	1,000,000 1,000,000	340	20	7	12.4	23	76QW3560(1)L0(2) 76QW3680(1)30(2)	R76QW3560(1)L0(2) R76QW3680(1)30(2)
1,000	600	0.82	20.0	40.0	41.5	37.5	500	1,000,000	410	20	6	13.5	19	76QW3820(1)30(2)	R76QW3820(1)30(2)
1,000	600	1	20.0	40.0	41.5	37.5	500	1,000,000	500	20	5.6	13.8	19	76QW4100(1)30(2)	R76QW4100(1)30(2)
1,000	600	1.2	24.0	44.0	41.5	37.5	500	1,000,000	600	20	5.3	14.8	17	76QW4120(1)30(2)	R76QW4120(1)30(2)
1,000	600	1.5	24.0	44.0	41.5	37.5	500	1,000,000	750	20	4.2	16.5	17	76QW4150(1)30(2)	R76QW4150(1)30(2)
1,000	600	1.8	30.0	45.0	41.5	37.5	500	1,000,000	900	20	5.3	15.3	16	76QW4180(1)30(2)	R76QW4180(1)30(2)
1,000 1,600	600 650	2.2 0.0022	30.0	45.0 9.0	41.5 13.0	37.5 10.0	500 8000	1,000,000 25,600,000	1,100 18	20 9	4.3 289.4	17.0 0.9	16 79	76QW4220(1)30(2) 76TF1220(1)50(2)	R76QW4220(1)30(2) R76TF1220(1)50(2)
1,600	650	0.0022	4.0	9.0	13.0	10.0	8000	25,600,000	22	9	235.8	1.0	79	76TF12Z0(1)50(2)	R76TF1270(1)50(2)
1,600	650	0.0033	5.0	11.0	13.0	10.0	8000	25,600,000	26	9	192.9	1.2	69	76TF1330(1)50(2)	R76TF1330(1)50(2)
1,600	650	0.0039	5.0	11.0	13.0	10.0	8000	25,600,000	31	9	163.2	1.3	69	76TF1390(1)50(2)	R76TF1390(1)50(2)
1,600	650	0.0047	5.0	11.0	13.0	10.0	8000	25,600,000	38	9	135.5	1.5	69	76TF1470(1)50(2)	R76TF1470(1)50(2)
1,600	650	0.0056	6.0	12.0	13.0	10.0	8000	25,600,000	45	9	113.7	1.7	64	76TF1560(1)50(2)	R76TF1560(1)50(2)
1,600 1,600	650 650	0.0068 0.0033	6.0 4.0	12.0 10.0	13.0 18.0	10.0 15.0	8000 6,000	25,600,000 19,200,000	54 20	9 10	93.6 193	1.8 1.3	64 65	76TF1680(1)50(2) 76TI1330(1)40(2)	R76TF1680(1)50(2) R76TI1330(1)40(2)
1,600	650	0.0033	5.0	11.0	18.0	15.0	6,000	19,200,000	20	10	193	1.3	60	76TI1330(1)40(2)	R76TI1330(1)40(2)
1,600	650	0.0039	4.0	10.0	18.0	15.0	6,000	19,200,000	23	10	163	1.4	65	76TI1390(1)40(2)	R76TI1390(1)40(2)
1,600	650	0.0039	5.0	11.0	18.0	15.0	6,000	19,200,000	23	10	163	1.4	60	76TI1390(1)30(2)	R76TI1390(1)30(2)
1,600	650	0.0047	4.0	10.0	18.0	15.0	6,000	19,200,000	28	10	135	1.5	65	76TI1470(1)40(2)	R76TI1470(1)40(2)
1,600	650	0.0047	5.0	11.0	18.0	15.0	6,000	19,200,000	28	10	135	1.6	60	76TI1470(1)30(2)	R76TI1470(1)30(2)
1,600 1,600	650 650	0.0056 0.0056	4.0 5.0	10.0 11.0	18.0 18.0	15.0 15.0	6,000 6,000	19,200,000 19,200,000	34 34	10 10	114 114	1.6 1.7	65 60	76TI1560(1)40(2) 76TI1560(1)30(2)	R76TI1560(1)40(2) R76TI1560(1)30(2)
1,600	650	0.0056	5.0			15.0	6,000	19,200,000	41	10	94	1.7	60	76TI1680(1)30(2)	R76TI1680(1)30(2)
1,600	650	0.0082	5.0	11.0		15.0	6,000	19,200,000	49	10	78	2.1	60	76TI1820(1)40(2)	R76TI1820(1)40(2)
1,600	650	0.01	5.0	11.0	18.0	15.0	6,000	19,200,000	60	10	64	2.3	60	76TI2100(1)40(2)	R76TI2100(1)40(2)
1,600	650	0.012	6.0	12.0		15.0	6,000	19,200,000	72	10	53	2.6	56	76TI2120(1)40(2)	R76TI2120(1)40(2)
1,600	650	0.015	6.0	12.0		15.0	6,000	19,200,000	90	10	42	2.9	56	76TI2150(1)40(2)	R76TI2150(1)40(2)
1,600 1,600	650 650	0.018 0.018	7.5 9.0	13.5 12.5		15.0 15.0	6,000 6,000	19,200,000 19,200,000	108 108	10 10	35 35	3.3 3.4	51 50	76TI2180(1)40(2) 76TI2180(1)70(2)	R76TI2180(1)40(2) R76TI2180(1)70(2)
1,600	650	0.018	7.5	13.5		15.0	6,000	19,200,000	132	10	29	3.4	51	76TI2220(1)40(2)	R76TI2220(1)40(2)
VDC	VAC	Сар	Т	Н	L	Lead Spacing	dV/dt	Max K	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET Internal	Customer
		Value				(S)	(V/µs)	(V²/μs)̇́	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



			Dim							ESL	ESR max	I <sub>rms max</sub> (*)	Rth		
VDC	VAC	Cap Value (µF)		nensi in mn		Lead Spacing (S)	dV/dt (V/μs)	Max K <sub>0</sub> (V²/μs)	pkr	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C		KEMET Internal Part Number	Customer Part Number
			Т	Н	L				A <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
1,600	650	0.022	13.0	12.0	18.0	15.0	6,000	19,200,000	132	10	29	3.9	45	76TI2220(1)70(2)	R76TI2220(1)70(2)
1,600	650 650	0.027 0.033	8.5 8.5	14.5	18.0 18.0	15.0 15.0	6,000 6,000	19,200,000 19,200,000	162 198	10 10	24 19	4.2 4.7	48 48	76TI2270(1)40(2) 76TI2330(1)40(2)	R76TI2270(1)40(2) R76TI2330(1)40(2)
1,600 1,600	650	0.033	10.0	16.0	18.0	15.0	6,000	19,200,000	234	10	16.3	5.3	44	76TI2330(1)40(2)	R76TI2330(1)40(2)
1,600	650	0.047	11.0	19.0	18.0	15.0	6,000	19,200,000	282	10	13.5	6.1	40	76TI2470(1)50(2)	R76TI2470(1)50(2)
1,600	650	0.056	11.0	19.0	18.0	15.0	6,000	19,200,000	336	10	19.9	5.0	40	76TI2560(1)50(2)	R76TI2560(1)50(2)
1,600	650	0.015	6.0	15.0	26.5	22.5	3,000	9,600,000	45	16	42	3.3	43	76TN2150(1)30(2)	R76TN2150(1)30(2)
1,600	650	0.018	6.0	15.0	26.5	22.5	3,000	9,600,000	54	16	35	3.6	43	76TN2180(1)30(2)	R76TN2180(1)30(2)
1,600 1,600	650 650	0.022 0.027	6.0 6.0	15.0 15.0	26.5 26.5	22.5 22.5	3,000 3,000	9,600,000 9,600,000	66 81	16 16	29 24	4.0 4.4	43 43	76TN2220(1)30(2) 76TN2270(1)30(2)	R76TN2220(1)30(2) R76TN2270(1)30(2)
1,600	650	0.027	6.0	15.0	26.5	22.5	3,000	9,600,000	99	16	19	4.4	43	76TN2330(1)40(2)	R76TN2330(1)40(2)
1,600	650	0.039	7.0	16.0	26.5	22.5	3,000	9,600,000	117	16	16	5.5	41	76TN2390(1)40(2)	R76TN2390(1)40(2)
1,600	650	0.047	7.0	16.0	26.5	22.5	3,000	9,600,000	141	16	14	6.0	41	76TN2470(1)40(2)	R76TN2470(1)40(2)
1,600	650	0.056	8.5	17.0	26.5	22.5	3,000	9,600,000	168	16	20	5.1	38	76TN2560(1)40(2)	R76TN2560(1)40(2)
1,600	650	0.068	10.0	18.5	26.5	22.5	3,000	9,600,000	204	16	16	5.8	36	76TN2680(1)40(2)	R76TN2680(1)40(2)
1,600	650	0.068	8.5	17.0	26.5	22.5	3,000	9,600,000	204	16	16.4	5.6	38	76TN2680(1)50(2)	R76TN2680(1)50(2)
1,600 1,600	650 650	0.082 0.1	10.0 11.0	18.5 20.0	26.5 26.5	22.5 22.5	3,000 3,000	9,600,000 9,600,000	246 300	16 16	14 11	6.4 7.3	36 34	76TN2820(1)40(2) 76TN3100(1)40(2)	R76TN2820(1)40(2) R76TN3100(1)40(2)
1,600	650	0.12	13.0	22.0	26.5	22.5	3,000	9,600,000	360	16	20	5.7	31	76TN3120(1)40(2)	R76TN3120(1)40(2)
1,600	650	0.15	13.0	22.0	26.5	22.5	3,000	9,600,000	450	16	16	6.3	31	76TN3150(1)50(2)	R76TN3150(1)50(2)
1,600	650	0.18	14.5	29.5	26.5	22.5	3,000	9,600,000	540	16	13.3	7.4	27	76TN3180(1)50(2)	R76TN3180(1)50(2)
1,600	650	0.039	9.0	17.0	32.0	27.5	2,000	6,400,000	78	18	20	5.3	35	76TR2390(1)30(2)	R76TR2390(1)30(2)
1,600	650	0.047	9.0	17.0	32.0	27.5	2,000	6,400,000	94	18	17	5.8	35	76TR2470(1)30(2)	R76TR2470(1)30(2)
1,600	650	0.056	9.0	17.0	32.0	27.5	2,000	6,400,000	112	18	20	5.4	35	76TR2560(1)30(2)	R76TR2560(1)30(2)
1,600 1,600	650 650	0.068 0.082	9.0 11.0	17.0 20.0	32.0 32.0	27.5 27.5	2,000 2,000	6,400,000 6,400,000	136 164	18 18	16 14	5.9 6.8	35 31	76TR2680(1)30(2) 76TR2820(1)30(2)	R76TR2680(1)30(2) R76TR2820(1)30(2)
1,600	650	0.082	11.0	20.0	32.0	27.5	2,000	6,400,000	200	18	11	7.6	31	76TR2820(1)30(2)	R76TR3100(1)30(2)
1,600	650	0.12	11.0	20.0	32.0	27.5	2,000	6,400,000	240	18	20	5.7	31	76TR3120(1)40(2)	R76TR3120(1)40(2)
1,600	650	0.12	13.0	22.0	32.0	27.5	2,000	6,400,000	240	18	20	5.9	29	76TR3120(1)30(2)	R76TR3120(1)30(2)
1,600	650	0.12	24.0	15.0	32.0	27.5	2,000	6,400,000	240	18	20	6.1	27	76TR3120(1)L0(2)	R76TR3120(1)L0(2)
1,600	650	0.15	13.0	22.0	32.0	27.5	2,000	6,400,000	300	18	16	6.6	29	76TR3150(1)50(2)	R76TR3150(1)50(2)
1,600	650	0.15	13.0	25.0	32.0	27.5	2,000	6,400,000	300	18	16	6.7	28	76TR3150(1)40(2)	R76TR3150(1)40(2)
1,600 1,600	650 650	0.15 0.18	24.0 13.0	15.0 25.0	32.0 32.0	27.5 27.5	2,000 2,000	6,400,000 6,400,000	300 360	18 18	16 13	6.8 7.4	27 28	76TR3150(1)L0(2) 76TR3180(1)50(2)	R76TR3150(1)L0(2) R76TR3180(1)50(2)
1,600	650	0.18	14.0	28.0	32.0	27.5	2,000	6,400,000	360	18	13	7.4	26	76TR3180(1)40(2)	R76TR3180(1)40(2)
1,600	650	0.18	24.0	15.0	32.0	27.5	2,000	6,400,000	360	18	13	7.5	27	76TR3180(1)L0(2)	R76TR3180(1)L0(2)
1,600	650	0.22	14.0	28.0	32.0	27.5	2,000	6,400,000	440	18	11	8.4	26	76TR3220(1)40(2)	R76TR3220(1)40(2)
1,600	650	0.22	18.0	33.0	32.0	27.5	2,000	6,400,000	440	18	11	9.0	23	76TR3220(1)30(2)	R76TR3220(1)30(2)
1,600	650	0.27	18.0	33.0	32.0	27.5	2,000	6,400,000	540	18	9	9.9	23	76TR3270(1)30(2)	R76TR3270(1)30(2)
1,600	650	0.33		33.0		27.5	2,000	6,400,000	660	18	7	11.0	23		R76TR3330(1)30(2)
1,600 1,600	650 650	0.39 0.47		37.0	32.0	27.5 27.5	2,000 2,000	6,400,000 6,400,000	780 940	18 18	8 7	10.9 11.9	21 21		R76TR3390(1)30(2) R76TR3470(1)30(2)
1,600	650	0.47	11.0	22.0	41.5	37.5	1,200	3,840,000	940	20	14	7.4	27	76TW2820(1)30(2)	R76TW2820(1)30(2)
1,600	650	0.002	11.0	22.0	41.5	37.5	1,200	3,840,000	120	20	11	8.1	27		R76TW3100(1)30(2)
1,600	650	0.12	11.0	22.0	41.5	37.5	1,200	3,840,000	144	20	20	6.1	27		R76TW3120(1)30(2)
1,600	650	0.15	11.0	22.0	41.5	37.5	1,200	3,840,000	180	20	16	6.8	27		R76TW3150(1)30(2)
1,600	650	0.18	13.0	24.0	41.5	37.5	1,200	3,840,000	216	20	13	7.7	25	. , , ,	R76TW3180(1)30(2)
1,600	650	0.18	24.0	15.0	41.5	37.5	1,200	3,840,000	216	20 Lead	13 <b>at</b>	7.9 <b>at</b>	24	761 W318U(1)LU(2)	R76TW3180(1)L0(2)
VDC	VAC	Сар	Т	Н	   [	Lead Spacing	dV/dt	Max K <sub>o</sub>	A <sub>pk</sub>	Length 2x 4 mm	100 kHz	100 kHz 85°C	(°C/W)	KEMET Internal	Customer
	TAU	Value	ľ		_	(S)	(V/µs)	(V²/µs)̇́	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



		Cap		nensi		Lead	dV/dt	Max K	l <sub>pkr</sub>	ESL Lead	ESR max	I <sub>rms max</sub> (*)	Rth	KEMET	Customer
VDC	VAC	Value (µF)		n mn	n	Spacing (S)	(V/µs)	(V <sup>2</sup> /μs)	ркг	Length 2x 4 mm	100 kHz	100 kHz 85°C		Internal Part Number	Part Number
			Т	н	L				A <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
1,600	650	0.22	13.0	24.0	41.5	37.5	1,200	3,840,000	264	20	11	8.5	25	76TW3220(1)30(2)	R76TW3220(1)30(2)
1,600	650	0.22	24.0	15.0	41.5	37.5	1,200	3,840,000	264	20	11	8.7	24	76TW3220(1)L0(2)	R76TW3220(1)L0(2)
1,600 1,600	650 650	0.27 0.27	13.0 24.0	24.0 19.0	41.5 41.5	37.5 37.5	1,200 1,200	3,840,000 3,840,000	324 324	20 20	9	9.5 9.9	25 23	76TW3270(1)30(2) 76TW3270(1)L0(2)	R76TW3270(1)30(2) R76TW3270(1)L0(2)
1,600	650	0.27	16.0	28.5	41.5	37.5	1,200	3,840,000	396	20	7	11.1	23	76TW3270(1)E0(2)	R76TW3270(1)E0(2)
1,600	650	0.33	24.0	19.0	41.5	37.5	1,200	3,840,000	396	20	7	11.0	23	76TW3330(1)L0(2)	R76TW3330(1)L0(2)
1,600	650	0.39	16.0	28.5	41.5	37.5	1,200	3,840,000	468	20	8	10.4	23	76TW3390(1)30(2)	R76TW3390(1)30(2)
1,600	650	0.47	19.0	32.0	41.5	37.5	1,200	3,840,000	564	20	7	12.0	21	76TW3470(1)30(2)	R76TW3470(1)30(2)
1,600 1,600	650 650	0.56 0.68	20.0	40.0	41.5 41.5	37.5 37.5	1,200 1,200	3,840,000 3,840,000	672 816	20 20	6 7	13.7 12.3	19 19	76TW3560(1)30(2) 76TW3680(1)30(2)	R76TW3560(1)30(2) R76TW3680(1)30(2)
1,600	650	0.82	24.0	44.0	41.5	37.5	1,200	3,840,000	984	20	6	14.1	17	76TW38820(1)30(2)	R76TW3820(1)30(2)
1,600	650	1	24.0	44.0	41.5	37.5	1,200	3,840,000	1,200	20	5.6	14.4	17	76TW4100(1)30(2)	R76TW4100(1)30(2)
1,600	650	1.2	30.0	45.0	41.5	37.5	1,200	3,840,000	1,440	20	5.3	15.3	16	76TW4120(1)30(2)	R76TW4120(1)30(2)
2,000	700	0.0001	4.0	10.0	18.0	15.0	11,000	44,000,000	1	10	6,366	0.0	65	76UI0100(1)40(2)	R76UI0100(1)40(2)
2,000	700 700	0.00012 0.00015	4.0 4.0	10.0 10.0	18.0 18.0	15.0 15.0	11,000	44,000,000	1	10	5,305	0.1	65 65	76UI0120(1)40(2)	R76UI0120(1)40(2)
2,000 2,000	700	0.00013	4.0	10.0	18.0	15.0	11,000 11,000	44,000,000 44,000,000	2	10 10	4,244 3,537	0.1 0.1	65	76UI0150(1)40(2) 76UI0180(1)40(2)	R76UI0150(1)40(2) R76UI0180(1)40(2)
2,000	700	0.00013	4.0	10.0	18.0	15.0	11,000	44,000,000	2	10	2,894	0.1	65	76UI0220(1)40(2)	R76UI0220(1)40(2)
2,000	700	0.00022	5.0	11.0	18.0	15.0	11,000	44,000,000	2	10	2,894	0.1	60	76UI0220(1)00(2)	R76UI0220(1)00(2)
2,000	700	0.00027	4.0	10.0	18.0	15.0	11,000	44,000,000	3	10	2,358	0.1	65	76UI0270(1)40(2)	R76UI0270(1)40(2)
2,000	700	0.00027	5.0	11.0	18.0	15.0	11,000	44,000,000	3	10	2,358	0.1	60	76UI0270(1)00(2)	R76UI0270(1)00(2)
2,000 2,000	700 700	0.00033 0.00033	4.0 5.0	10.0 11.0	18.0 18.0	15.0 15.0	11,000 11,000	44,000,000	4	10 10	1,929 1,929	0.1 0.1	65 60	76UI0330(1)40(2) 76UI0330(1)00(2)	R76UI0330(1)40(2) R76UI0330(1)00(2)
2,000	700	0.00033	4.0	10.0	18.0	15.0	11,000	44,000,000	4	10	1,632	0.1	65	76UI0330(1)00(2)	R76UI0330(1)00(2)
2,000	700	0.00039	5.0	11.0	18.0	15.0	11,000	44,000,000	4	10	1,632	0.2	60	76UI0390(1)00(2)	R76UI0390(1)00(2)
2,000	700	0.00047	4.0	10.0	18.0	15.0	9,500	38,000,000	4	10	1,355	0.2	65	76UI0470(1)40(2)	R76UI0470(1)40(2)
2,000	700	0.00047	5.0	11.0	18.0	15.0	9,500	38,000,000	4	10	1,355	0.2	60	76UI0470(1)00(2)	R76UI0470(1)00(2)
2,000	700	0.00056	4.0	10.0	18.0	15.0	9,500	38,000,000	5	10	1,137	0.2	65	76UI0560(1)40(2)	R76UI0560(1)40(2)
2,000	700 700	0.00056 0.00068	5.0 4.0	11.0 10.0	18.0 18.0	15.0 15.0	9,500 9,500	38,000,000 38,000,000	5 6	10 10	1,137 936	0.2 0.3	60 65	76UI0560(1)00(2) 76UI0680(1)40(2)	R76UI0560(1)00(2) R76UI0680(1)40(2)
2,000	700	0.00068	5.0	11.0	18.0	15.0	9,500	38,000,000	6	10	936	0.3	60	76UI0680(1)00(2)	R76UI0680(1)40(2)
2,000	700	0.00082	4.0	10.0	18.0	15.0	9,500	38,000,000	8	10	776	0.4	65	76UI0820(1)40(2)	R76UI0820(1)40(2)
2,000	700	0.00082	5.0	11.0	18.0	15.0	9,500	38,000,000	8	10	776	0.4	60	76UI0820(1)00(2)	R76UI0820(1)00(2)
2,000	700	0.001	4.0	10.0	18.0	15.0	9,500	38,000,000	10	10	637	0.4	65	76UI1100(1)40(2)	R76UI1100(1)40(2)
2,000 2,000	700 700	0.001 0.0012	5.0 4.0	11.0 10.0	18.0 18.0	15.0 15.0	9,500 9,500	38,000,000 38,000,000	10 11	10 10	637 531	0.4 0.5	60 65	76UI1100(1)30(2) 76UI1120(1)40(2)	R76UI1100(1)30(2) R76UI1120(1)40(2)
2,000	700	0.0012	5.0	11.0	18.0	15.0	9,500	38,000,000	11	10	531	0.5	60	76UI1120(1)30(2)	R76UI1120(1)40(2)
2,000	700	0.0015	4.0	10.0	18.0	15.0	9,500	38,000,000	14	10	424	0.7	65	76UI1150(1)40(2)	R76UI1150(1)40(2)
2,000	700	0.0015	5.0	11.0	18.0	15.0	9,500	38,000,000	14	10	424	0.7	60	76UI1150(1)30(2)	R76UI1150(1)30(2)
2,000	700	0.0018	4.0	10.0	18.0	15.0	9,500	38,000,000	17	10	354	0.8	65	76UI1180(1)40(2)	R76UI1180(1)40(2)
2,000	700	0.0018	5.0	11.0		15.0	9,500	38,000,000	17	10	354	0.8	60	76UI1180(1)30(2)	R76UI1180(1)30(2)
2,000	700 700	0.0022 0.0022	4.0	10.0 11.0	18.0 18.0	15.0 15.0	9,500	38,000,000 38,000,000	21	10	289 289	1.0	65 60	76UI1220(1)40(2) 76UI1220(1)30(2)	R76UI1220(1)40(2) R76UI1220(1)30(2)
2,000 2,000	700	0.0022	5.0 4.0	10.0	18.0	15.0 15.0	9,500 9,500	38,000,000	21 26	10 10	289	1.0 1.1	60 65	76UI12ZU(1)3U(2)	R76UI12ZU(1)3U(2) R76UI1270(1)40(2)
2,000	700	0.0027	5.0	11.0	18.0	15.0	9,500	38,000,000	26	10	236	1.2	60	76UI1270(1)40(2)	R76UI1270(1)40(2)
2,000	700	0.0033	5.0	11.0	18.0	15.0	9,500	38,000,000	31	10	193	1.3	60	76UI1330(1)40(2)	R76UI1330(1)40(2)
2,000	700	0.0039	5.0	11.0	18.0	15.0	9,500	38,000,000	37	10	163	1.4	60	76UI1390(1)40(2)	R76UI1390(1)40(2)
2,000	700	0.0047	5.0	11.0	18.0	15.0	9,500	38,000,000	45	10	135	1.6	60	76UI1470(1)40(2)	R76UI1470(1)40(2)
VDC	VAC	Сар	Т	н	L	Lead Spacing	dV/dt	Max K₀	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET Internal	Customer
VDC	VAU	Value	'		_	(S)	(V/µs)	(V²/µs)̈́	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



VDC	VAC	Cap Value		nensi in mn		Lead Spacing	dV/dt	Max K	l <sub>pkr</sub>	ESL Lead	ESR max	I <sub>rms max</sub> (*)	Rth	KEMET Internal	Customer Part
		(μ <b>F</b> )				(S)	(V/µs)	(V²/μs)		Length 2x 4 mm	100 kHz	100 kHz 85°C		Part Number	Number
			Т	н	L				A <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
2,000	700	0.0056	6.0	12.0	18.0	15.0	9,500	38,000,000	53	10	114	1.8	56	76UI1560(1)40(2)	R76UI1560(1)40(2)
2,000	700	0.0068	6.0	12.0	18.0	15.0	9,500	38,000,000	65	10	94	2.0	56	76UI1680(1)40(2)	R76UI1680(1)40(2)
2,000	700	0.0082	6.0	12.0	18.0	15.0	9,500	38,000,000	78	10	78	2.1	56	76UI1820(1)40(2)	R76UI1820(1)40(2)
2,000 2,000	700 700	0.01 0.01	7.5 13.0	13.5 12.0	18.0 18.0	15.0 15.0	9,500 9,500	38,000,000 38,000,000	95 95	10 10	64 64	2.5 2.6	51 45	76UI2100(1)40(2) 76UI2100(1)70(2)	R76UI2100(1)40(2) R76UI2100(1)70(2)
2,000	700	0.012	7.5	13.5	18.0	15.0	9,500	38,000,000	114	10	53.1	2.7	51	76UI2120(1)50(2)	R76UI2120(1)50(2)
2,000	700	0.012	8.5	14.5	18.0	15.0	9,500	38,000,000	114	10	53	2.8	48	76UI2120(1)40(2)	R76UI2120(1)40(2)
2,000	700	0.015	8.5	14.5	18.0	15.0	9,500	38,000,000	143	10	42	3.1	48	76UI2150(1)40(2)	R76UI2150(1)40(2)
2,000	700	0.018	10.0	16.0	18.0	15.0	9,500	38,000,000	171	10	35.4	3.6	44	76UI2180(1)50(2)	R76UI2180(1)50(2)
2,000	700	0.022	10.0	16.0	18.0	15.0	9,500	38,000,000	209	10	28.9	4.0	44	76UI2220(1)50(2)	R76UI2220(1)50(2)
2,000	700 700	0.027 0.001	11.0	19.0	18.0 26.5	15.0 22.5	9,500	38,000,000	257 5	10 16	23.6 637	4.6 0.4	40 43	76UI2270(1)50(2)	R76UI2270(1)50(2)
2,000 2,000	700	0.001	6.0	15.0 15.0	26.5	22.5	4,500 4,500	18,000,000 18,000,000	5	16	531	0.4	43	76UN1100(1)00(2) 76UN1120(1)00(2)	R76UN1100(1)00(2) R76UN1120(1)00(2)
2,000	700	0.0012	6.0	15.0	26.5	22.5	4,500	18,000,000	7	16	424	0.7	43	76UN1150(1)00(2)	R76UN1150(1)00(2)
2,000	700	0.0018	6.0	15.0	26.5	22.5	4,500	18,000,000	8	16	354	0.8	43	76UN1180(1)00(2)	R76UN1180(1)00(2)
2,000	700	0.0022	6.0	15.0	26.5	22.5	4,500	18,000,000	10	16	289	1.0	43	76UN1220(1)00(2)	R76UN1220(1)00(2)
2,000	700	0.0027	6.0	15.0	26.5	22.5	4,500	18,000,000	12	16	236	1.2	43	76UN1270(1)00(2)	R76UN1270(1)00(2)
2,000	700	0.0033	6.0	15.0	26.5	22.5	4,500	18,000,000	15	16	193	1.5	43	76UN1330(1)00(2)	R76UN1330(1)00(2)
2,000	700	0.0039	6.0	15.0	26.5	22.5	4,500	18,000,000	18	16	163	1.7	43	76UN1390(1)00(2)	R76UN1390(1)00(2)
2,000 2,000	700 700	0.0047 0.0056	6.0 6.0	15.0 15.0	26.5 26.5	22.5 22.5	4,500 4,500	18,000,000 18,000,000	21 25	16 16	135 114	1.8 2.0	43 43	76UN1470(1)00(2) 76UN1560(1)00(2)	R76UN1470(1)00(2) R76UN1560(1)00(2)
2,000	700	0.0068	6.0	15.0	26.5	22.5	4,500	18,000,000	31	16	94	2.2	43		R76UN1680(1)00(2)
2,000	700	0.0082	6.0	15.0	26.5	22.5	4,500	18,000,000	37	16	78	2.4	43	76UN1820(1)30(2)	R76UN1820(1)30(2)
2,000	700	0.01	6.0	15.0	26.5	22.5	4,500	18,000,000	45	16	64	2.7	43	76UN2100(1)30(2)	R76UN2100(1)30(2)
2,000	700	0.012	6.0	15.0	26.5	22.5	4,500	18,000,000	54	16	53	2.9	43	76UN2120(1)30(2)	R76UN2120(1)30(2)
2,000	700	0.015	6.0	15.0	26.5	22.5	4,500	18,000,000	68	16	42	3.3	43	76UN2150(1)40(2)	R76UN2150(1)40(2)
2,000	700	0.018	6.0	15.0	26.5	22.5	4,500	18,000,000	81	16	35	3.6	43	76UN2180(1)40(2)	R76UN2180(1)40(2)
2,000 2,000	700 700	0.022 0.027	7.0 7.0	16.0 16.0	26.5 26.5	22.5 22.5	4,500 4,500	18,000,000 18,000,000	99 122	16 16	29 24	4.1 4.5	41 41	76UN2220(1)40(2) 76UN2270(1)40(2)	R76UN2220(1)40(2) R76UN2270(1)40(2)
2,000	700	0.027	8.5	17.0	26.5	22.5	4,500	18,000,000	149	16	19	5.2	38	76UN2330(1)40(2)	R76UN2330(1)40(2)
2,000	700	0.039	8.5	17.0	26.5	22.5	4,500	18,000,000	176	16	16.3	5.6	38	76UN2390(1)50(2)	R76UN2390(1)50(2)
2,000	700	0.039	10.0	18.5	26.5	22.5	4,500	18,000,000	176	16	16	5.9	36	76UN2390(1)40(2)	R76UN2390(1)40(2)
2,000	700	0.047	10.0	18.5	26.5	22.5	4,500	18,000,000	212	16	14	6.4	36	76UN2470(1)40(2)	R76UN2470(1)40(2)
2,000	700	0.056	11.0	20.0	26.5	22.5	4,500	18,000,000	252	16	20	5.4	34		R76UN2560(1)40(2)
2,000	700	0.068	11.0	20.0	26.5	22.5	4,500	18,000,000	306	16	16.4	6.0	34	76UN2680(1)50(2)	R76UN2680(1)50(2)
2,000 2,000	700 700	0.082 0.1	13.0 14.5	22.0 29.5	26.5 26.5	22.5 22.5	4,500 4,500	18,000,000 18,000,000	369 450	16 16	13.6 11.1	6.8 8.1	31 27	76UN2820(1)50(2) 76UN3100(1)50(2)	R76UN2820(1)50(2) R76UN3100(1)50(2)
2,000	700	0.022	9.0	17.0	32.0	27.5	2,500	10,000,000	55	18	36	4.0	35	76UR2220(1)30(2)	R76UR2220(1)30(2)
2,000	700	0.027	9.0	17.0	32.0	27.5	2,500	10,000,000	68	18	29	4.4	35	76UR2270(1)30(2)	R76UR2270(1)30(2)
2,000	700	0.033	9.0	17.0	32.0	27.5	2,500	10,000,000	83	18	24	4.9	35		R76UR2330(1)30(2)
2,000	700	0.039	11.0	20.0	32.0	27.5	2,500	10,000,000	98	18	20	5.6	31		R76UR2390(1)20(2)
2,000	700	0.047		20.0		27.5	2,500	10,000,000	118	18	17	6.1	31	76UR2470(1)30(2)	R76UR2470(1)30(2)
2,000	700	0.047	24.0		32.0	27.5	2,500	10,000,000	118	18	17	6.6	27	76UR2470(1)L0(2)	R76UR2470(1)L0(2) R76UR2560(1)30(2)
2,000 2,000	700 700	0.056 0.056	13.0 24.0	22.0 15.0		27.5 27.5	2,500 2,500	10,000,000	140 140	18 18	20 20	5.9 6.1	29 27	76UR2560(1)30(2) 76UR2560(1)L0(2)	R76UR2560(1)30(2)
2,000	700	0.056	13.0	22.0	32.0	27.5	2,500	10,000,000	170	18	16	6.5	29	76UR2680(1)30(2)	R76UR2680(1)30(2)
2,000	700	0.068	24.0	15.0	32.0	27.5	2,500	10,000,000	170	18	16	6.7	27	76UR2680(1)L0(2)	R76UR2680(1)L0(2)
2,000	700	0.082	13.0	25.0	32.0	27.5	2,500	10,000,000	205	18	14	7.3	28		R76UR2820(1)40(2)
VDC	VAC	Сар	т	н	L	Lead Spacing	dV/dt	Max K₀	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET Internal	Customer
100	TAU	Value	•		_	(S)	(V/µs)	(V²/µs)̇́	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20$  °C in the hot spot >  $T_{HS}$  =  $T_{AMB}$  +  $\Delta T$  = 85 °C + 20 °C = 105 °C



		Con	Dim	nensi	ons	Lead				ESL	ESR max	I <sub>rms max</sub> (*)	Rth	KEMET	Customor
VDC	VAC	Cap Value (µF)		n mn		Spacing (S)	dV/dt (V/μs)	Max K <sub>0</sub> (V²/μs)	pkr	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C		Internal Part Number	Customer Part Number
			Т	Н	L				<b>A</b> <sub>pk</sub>	nH	mΩ	A <sub>rms</sub>	(°C/W)		
2,000	700	0.082	24.0	15.0	32.0	27.5	2,500	10,000,000	205	18	14	7.4	27	76UR2820(1)L0(2)	R76UR2820(1)L0(2)
2,000	700	0.1	14.0	28.0	32.0	27.5	2,500	10,000,000	250	18	11	8.3	26	76UR3100(1)30(2)	R76UR3100(1)30(2)
2,000	700	0.12	18.0	33.0	32.0	27.5	2,500	10,000,000	300	18	20	6.6	23	76UR3120(1)30(2)	R76UR3120(1)30(2)
2,000	700	0.15	18.0	33.0		27.5	2,500	10,000,000	375	18	16	7.4	23	76UR3150(1)30(2)	R76UR3150(1)30(2)
2,000	700	0.18	22.0	37.0	32.0	27.5	2,500	10,000,000	450	18	13	8.5	21	76UR3180(1)30(2)	R76UR3180(1)30(2)
2,000	700	0.22	22.0	37.0	32.0	27.5	2,500	10,000,000	550	18	11	9.4	21	76UR3220(1)30(2)	R76UR3220(1)30(2)
2,000	700	0.033	11.0	22.0	41.5	37.5	1,500	6,000,000	50	20	24	5.5	27	. , , , ,	R76UW2330(1)30(2)
2,000	700	0.039	11.0	22.0	41.5	37.5	1,500	6,000,000	59	20	20	6.0	27	. , , ,	R76UW2390(1)30(2)
2,000	700	0.047	11.0	22.0	41.5	37.5	1,500	6,000,000	71	20	17	6.6	27		R76UW2470(1)30(2)
2,000	700	0.056	11.0	22.0	41.5	37.5	1,500	6,000,000	84	20	20	6.1	27		R76UW2560(1)30(2)
2,000	700	0.068	11.0	22.0	41.5	37.5	1,500	6,000,000	102	20	16	6.7	27		R76UW2680(1)30(2)
2,000	700	0.082	11.0	22.0	41.5	37.5	1,500	6,000,000	123	20	14	7.4	27		R76UW2820(1)30(2)
2,000	700	0.082	24.0	15.0	41.5	37.5	1,500	6,000,000	123	20	14	7.8	24	( ) ( )	R76UW2820(1)L0(2)
2,000	700	0.1	13.0	24.0	41.5	37.5	1,500	6,000,000	150	20	11	8.4	25		R76UW3100(1)30(2)
2,000	700	0.1	24.0	15.0	41.5	37.5	1,500	6,000,000	150	20	11	8.6	24		R76UW3100(1)L0(2)
2,000	700	0.12	13.0	24.0	41.5	37.5	1,500	6,000,000	180	20	20	6.3	25		R76UW3120(1)30(2)
2,000	700	0.12	24.0	15.0	41.5	37.5	1,500	6,000,000	180	20	20	6.4	24	. , , ,	R76UW3120(1)L0(2)
2,000	700	0.15	16.0	28.5	41.5	37.5	1,500	6,000,000	225	20	16	7.5	23		R76UW3150(1)30(2)
2,000	700	0.15	24.0	19.0	41.5	37.5	1,500	6,000,000	225	20	16	7.4	23		R76UW3150(1)L0(2)
2,000	700	0.18	16.0	28.5	41.5	37.5	1,500	6,000,000	270	20	13	8.2	23		R76UW3180(1)30(2)
2,000	700	0.18	24.0	19.0	41.5	37.5	1,500	6,000,000	270	20	13	8.1	23	. , , , ,	R76UW3180(1)L0(2)
2,000	700	0.22	19.0	32.0	41.5	37.5	1,500	6,000,000	330	20	11	9.4	21		R76UW3220(1)30(2)
2,000	700	0.27	20.0	40.0	41.5	37.5	1,500	6,000,000	405	20	9	11.0	19		R76UW3270(1)30(2)
2,000	700	0.33		40.0	41.5	37.5	1,500	6,000,000	495	20	7	12.1	19		R76UW3330(1)30(2)
2,000	700	0.39	24.0	44.0	41.5	37.5	1,500	6,000,000	585	20	8	11.9	17		R76UW3390(1)30(2)
2,000	700	0.47	24.0	44.0	41.5	37.5	1,500	6,000,000	705	20	7	13.1	17		R76UW3470(1)30(2)
2,000	700	0.56	30.0	45.0	41.5	37.5	1,500	6,000,000	840	20	6	14.8	16	76UW3560(1)30(2)	R76UW3560(1)30(2)
VDC	VAC	Cap Value	Т	н	L	Lead Spacing	dV/dt	Max K	A <sub>pk</sub>	Lead Length 2x 4 mm	at 100 kHz	at 100 kHz 85°C	(°C/W)	KEMET Internal	Customer
		value				(S)	(V/µs)	(V²/μs)̇́	l <sub>pkr</sub>	ESL	ESR max	I <sub>rms max</sub> (*)	R <sub>th</sub>	Part Number	Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup> H = 2.5% (only for  $C \ge 1,000$  pF), J = 5%, K = 10%

<sup>(\*)</sup>  $I_{rms}$  value that leads to a  $\Delta T$  of  $\approx 20^{\circ} C$  in the hot spot >  $T_{HS} = T_{AMB} + \Delta T = 85^{\circ} C + 20^{\circ} C = 105^{\circ} C$ 



#### **Soldering Process**

The implementation of the RoHS directive has resulted in the selection of SnAgCu (SAC) alloys or SnCu alloys as primary solder. This has increased the liquidus temperature from that of 183°C for SnPb eutectic alloy to 217 – 221°C for the new alloys. As a result, the heat stress to the components, even in wave soldering, has increased considerably due to higher pre-heat and wave temperatures. Polypropylene capacitors are especially sensitive to heat (the melting point of polypropylene is 160 – 170°C). Wave soldering can be destructive, especially for mechanically small polypropylene capacitors (with lead spacing of 5 mm to 15 mm), and great care has to be taken during soldering. The recommended solder profiles from KEMET should be used. Please consult KEMET with any questions. In general, the wave soldering curve from IEC Publication 61760–1 Edition 2 serves as a solid quideline for successful soldering. Please see Figure 1.

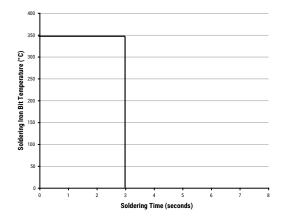
Reflow soldering is not recommended for through-hole film capacitors. Exposing capacitors to a soldering profile in excess of the above recommended limits may result in degradation or permanent damage to the capacitors.

Do not place the polypropylene capacitor through an adhesive curing oven to cure resin for surface mount components. Insert through-hole parts after the curing of surface mount parts. Consult KEMET to discuss the actual temperature profile in the oven, if through-hole components must pass through the adhesive curing process. A maximum two soldering cycles is recommended. Please allow time for the capacitor surface temperature to return to a normal temperature before the second soldering cycle.

#### **Manual Soldering Recommendations**

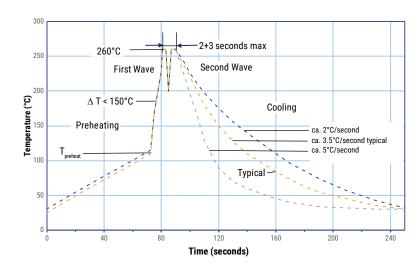
Following is the recommendation for manual soldering with a soldering iron.





The soldering iron tip temperature should be set at 350°C (+10°C maximum) with the soldering duration not to exceed more than 3 seconds.

#### **Wave Soldering Recommendations**





#### **Soldering Process cont.**

#### **Wave Soldering Recommendations cont.**

1. The table indicates the maximum set-up temperature of the soldering process

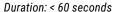
Figure 1

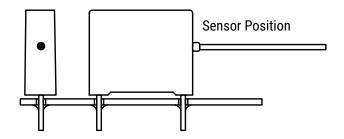
Film	Pre	mum heat erature	Peak So	mum oldering erature
Material	Capacitor Pitch ≤ 15 mm	Capacitor Pitch > 15 mm	Capacitor Pitch ≤ 15 mm	Capacitor Pitch > 15 mm
Double Metallized Polystyrene and Single Metallized Polypropylene	110°C	130°C	260°C	270°C

2. The maximum temperature measured on the capacitor body:

Set the temperature so that the maximum temperature is below the limit:

Film Material	Maximum Temperature Measured on the Capacitor Body
Double Metallized Polystyrene and Single Metallized Polypropylene	120°C (for series R76)





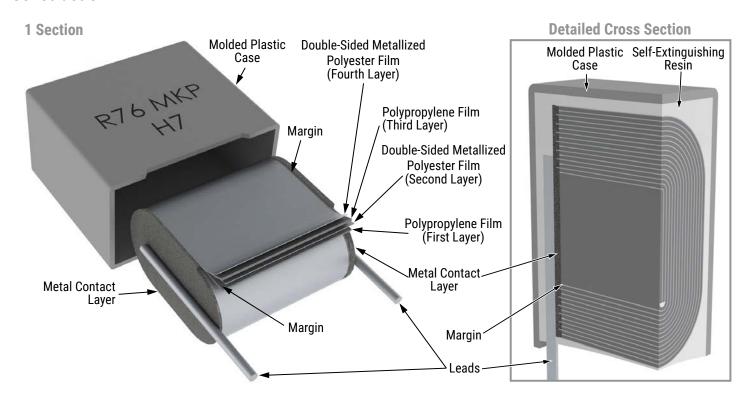
#### **Selective Soldering Recommendations**

Selective dip soldering is a variation of reflow soldering. In this method, the printed circuit board with through-hole components to be soldered is preheated and transported over the solder bath as in normal flow soldering without touching the solder. When the board is over the bath, it is stopped and pre-designed solder pots are lifted from the bath with molten solder only at the places of the selected components, and pressed against the lower surface of the board to solder the components.

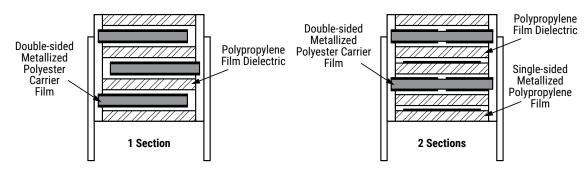
The temperature profile for selective soldering is similar to the double wave flow soldering outlined in this document, however, instead of two baths, there is only one bath with a time from 3 to 10 seconds. In selective soldering, the risk of overheating is greater than in double wave flow soldering, and great care must be taken so that the parts are not overheated.



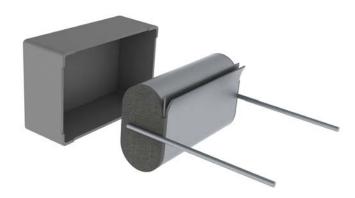
#### Construction



#### **Winding Schemes**

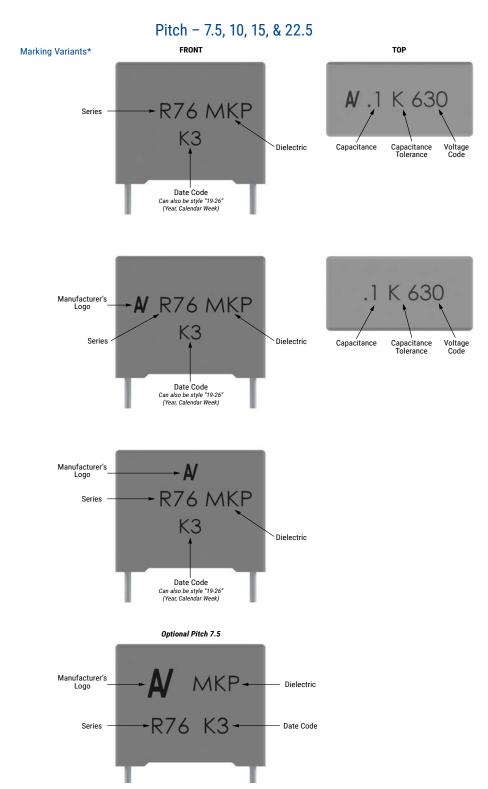


#### **Low Profile Version**





#### **Marking**



<sup>\*</sup>Differences are caused by technology (clichee, laser, or ink) and technic (production line)

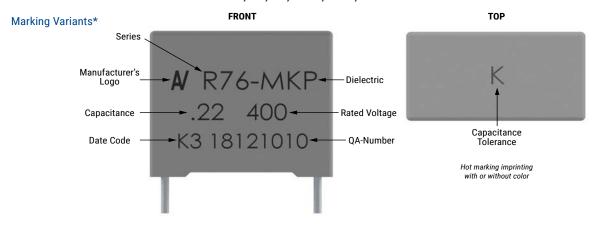
Slight change in the layout can be possible but this does not affect the content of the information of the current marking.

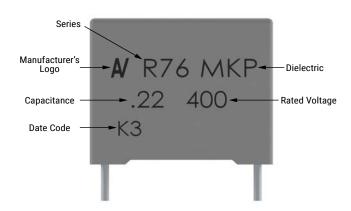
This change will be achieved without impact to product form, fit or function, as the products are equivalent with respect to physical, mechanical, quality and reliability characteristics.



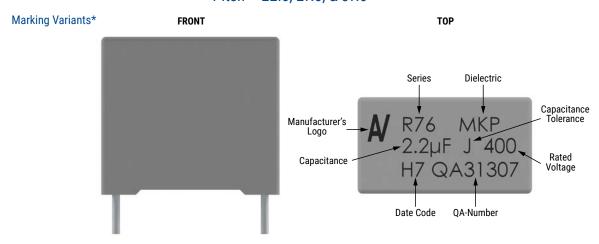
#### Marking cont.

Pitch - 7.5, 10, 15, 22.5, 27.5, & 37.5





Pitch - 22.5, 27.5, & 37.5



<sup>\*</sup> Differences are caused by technology (clichee, laser, or ink) and technic (production line)

Slight change in the layout can be possible but this does not affect the content of the information of the current marking.

This change will be achieved without impact to product form, fit or function, as the products are equivalent with respect to physical, mechanical, quality and reliability characteristics.



# Marking cont.

Man	ufacturing Date	e Code (IEC-600	062)
Year	Code	Month	Code
2010	Α	January	1
2011	В	February	2
2012	С	March	3
2013	D	April	4
2014	Е	May	5
2015	F	June	6
2016	Н	July	7
2017	J	August	8
2018	K	September	9
2019	L	October	0
2020	М	November	N
2021	N	December	D
2022	Р		
2023	R		
2024	S		
2025	Т		
2026	U		
2027	V		
2028	W		
2029	X		
2030	Α		



# **Packaging Quantities**

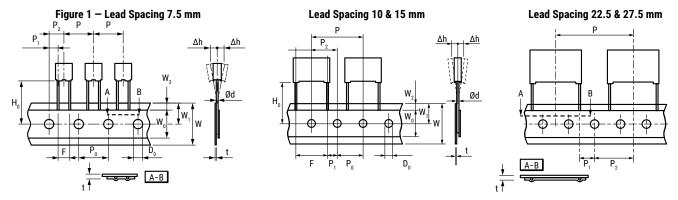
Lead Spacing	Thickness (mm)	Height (mm)	Length (mm)	Bulk Short Leads		ılk Leads	Standard Reel ø 355 mm	Large Reel ø 500 mm	Ammo Taped
	Lead and Packaging Code		JA - JB JE - JH - SE	Z3 <sup>1</sup> - JM <sup>2</sup>	40 - 50	GY - CK <sup>1</sup>	СК	DQ	
7.5	3.0	8.0	10.0	1,500	1,750	-	2,100	-	2,800
	4.0	9.0	10.0	2,000	1,500	-	1,500	-	2,100
	5.0	10.5	10.0	1,500	1,000	-	1,200	-	1,600
	6.0	12.0	10.5	1,000	800	-	1,000	-	1,350
10	4.0	9.0	13.0	2,000	2,200	1,800	750	1,500	1,000
	5.0	11.0	13.0	1,300	2,000	1,500	600	1,250	800
	6.0	12.0	13.0	1,000	1,800	1,200	500	1,000	680
						1			
	4.0	10.0	18.0	2,500	1,500	1,500	750	1,500	1,000
	5.0	11.0	18.0	2,000	1,250	1,000	600	1,250	800
	6.0	12.0	18.0	1,750	1,000	900	500	1,000	680
15	7.5 8.5	13.5 14.5	18.0 18.0	1,000 1,000	800 650	700 500	350 300	800 700	500 440
19	9.0	12.5	18.0	1,000	700	520	270	650	410
	10.0	16.0	18.0	750	550	500	270	600	380
	11.0	19.0	18.0	450	400	350	270	500	340
	13.0	12.0	18.0	750	520	490	200	480	280
	10.0	12.0	10.0	, , , ,	020			.00	200
	6.0	15.0	26.5	805	450	500	300	700	464
	7.0	16.0	26.5	700	450	500	250	550	380
	8.5	17.0	26.5	468	350	300	250	450	280
22.5	10.0	18.5	26.5	396	350	300	160	350	235
	11.0	20.0	26.5	360	200	250	160	350	217
	13.0	22.0	26.5	300	150	200	130	300	-
	14.5	29.5	26.5	264	120	-	-	-	-
	9.0	17.0	32.0	816	-	408	230	450	-
	11.0	20.0	32.0	560	-	336	190	350	-
	13.0	12.0	32.0	672	-	288	-	-	-
	13.0	22.0	32.0	480	-	288	150	300	-
27.5	13.0	25.0	32.0	480	-	288	-	-	-
27.3	14.0	28.0	32.0	352	-	176	-	-	-
	16.0	30.0	32.0	288	-	144	-	-	-
	18.0	33.0	32.0	256	-	128	-	-	-
	22.0	37.0	32.0	168	-	112	-	-	-
	24.0	15.0	32.0	336	-	144	-	-	•
	11.0	22.0	41.5	420	-	252	-	-	-
37.5	13.0	24.0	41.5	360	-	216	-	-	-
	16.0	28.5	41.5	216	-	108	-	-	-
	19.0	32.0	41.5	192	-	96	-	-	-
	20.0	40.0	41.5	126	-	84	-	-	-
	24.0	15.0	41.5	252	-	108	-	-	-
	24.0	19.0	41.5	216	-	108	-	-	-
	24.0	44.0	41.5	108	-	72	-	-	-
	30.0	45.0	41.5	90	-	60	-	-	-

<sup>1</sup> Only for 7.5 mm lead spacing.

<sup>2</sup> Only for > 7.5 mm lead spacing.



## Lead Taping & Packaging (IEC 60286-2)



## **Taping Specification**

		Dimensions (mm)					
Description	Symbol	Lead Spacing					Talamanaa
		7.5	10.0	15.0	22.5	27.5	Tolerance
Lead wire diameter	d	0.5 - 0.6	0.6	0.6 - 0.8	8.0	0.8	±0.05
Taping lead space	Р	12.7	25.4	25.4	38.1	38.1	±1
Feed hole lead space *	P <sub>0</sub>	12.7	12.7	12.7	12.7	12.7	±0.2 **
Centering of the lead wire	P <sub>1</sub>	2.6	7.7	5.2	7.8	5.3	±0.7
Centering of the body	P <sub>2</sub>	6.35	12.7	12.7	19.05	19.05	±1.3
Lead spacing ***	F	7.5	10.0	15.0	22.5	27.5	+0.6/-0.1
Component alignment	Δh	0	0	0	0	0	±2
Component deviation	Δр	0	0	0	0	0	±1
Height of component from tape center	H <sub>0</sub> ****	18.5	18.5	18.5	18.5	18.5	±0.5
Carrier tape width	W	18	18	18	18	18	+1/-0.5
Hold down tape width	W <sub>o</sub>	6	9	10	10	10	Minimum
Hole position	W <sub>1</sub>	9	9	9	9	9	±0.5
Hold down tape position	W <sub>2</sub>	3	3	3	3	3	Maximum
Feed hole diameter	D <sub>o</sub>	4	4	4	4	4	±0.2
Total Tape thickness	t	0.7	0.7	0.7	0.7	0.7	±0.2

<sup>\*</sup> Available also 15 mm.

<sup>\*\*</sup> Maximum 1 mm on 20 lead spacing.

<sup>\*\*\* 15</sup> mm and 10 mm taped to 7.5 mm (crimped leads) available upon request.

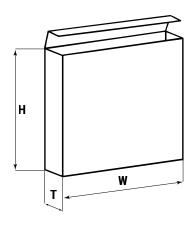
<sup>\*\*\*\*</sup>  $H_0$  = 16.5 mm is available upon request.



# Lead Taping & Packaging (IEC 60286-2) cont.

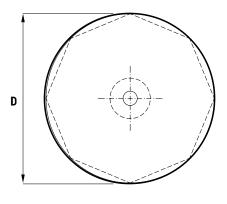
# **Ammo Specifications**

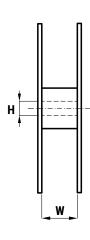
Dimensions (mm)					
Н	W	Т			
360	340	59			



# **Reel Specifications**

Dimensions (mm)					
D	Н	W			
355	30	55 Maximum			
500	25	33 Maxilliulli			







#### **KEMET Electronics Corporation Sales Offices**

For a complete list of our global sales offices, please visit www.kemet.com/sales.

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