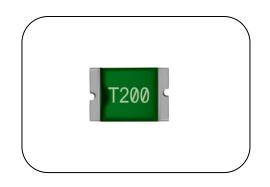
SMD Type



Features

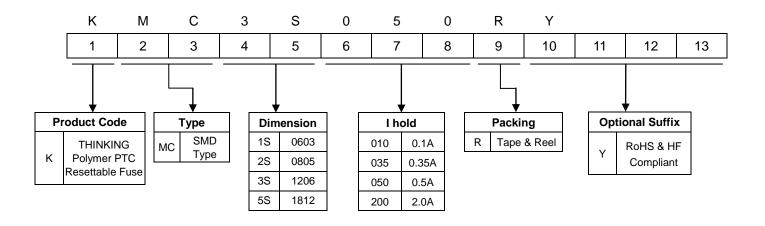
- 1. RoHS & Halogen-Free (HF) compliant
- 2. EIA size: 0603, 0805, 1206, 1812
- 3. Hold current ratings from 0.05 to 3A
- 4. Voltage ratings from 6V computer and electronic applications to 60V
- 5. Small footprint
- 6. Fast time to trip
- 7. Operating & storage temperature range: -40~+85°C
- 8. Agency Approval: UL / cUL / TUV



■ Recommended Applications

- 1. USB, HDMI, IEEE 1394...interface
- 2. PC, Motherboard, NB, Tablet
- 3. Mobile phone
- 4. Digital cameras
- 5. Telecommunication
- 6. Consumer Device

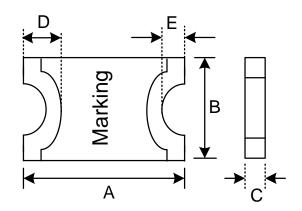
■ Part Number Code



SMD Type



■ Structure & Dimensions



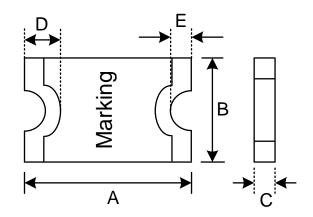
(Unit: mm)

	A	A		В		С		D		=
Part No.	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max)
KMC1S010					0.30	0.55				
KMC1S020	1.40	1.80	0.60	1.00	0.30	0.55	0.15	0.50		0.40
KMC1S025	1.40	1.60	0.00	1.00	0.30	0.55	0.15	0.50		0.40
KMC1S035					0.50	0.70				
KMC2S010					0.40	0.85				
KMC2S010-24					0.40	0.85				
KMC2S020	2.00	2.20	1.20	1.50	0.40	0.85	0.15	0.55	0.05	0.45
KMC2S035	2.00	2.20	1.20	1.50	0.30	0.75	0.15	0.55	0.05	0.45
KMC2S050					0.30	0.85				
KMC2S075					0.50	0.85				

SMD Type



■ Structure & Dimensions



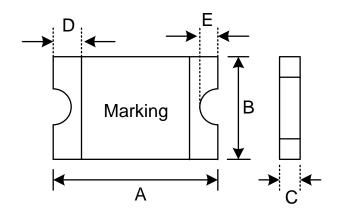
(Unit: mm)

	ļ ,	A	ı	В	([)		≣
Part No.	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max)
KMC3S005					0.50	0.90				
KMC3S010					0.50	0.90				
KMC3S012					0.35	0.80				
KMC3S016					0.28	0.68				
KMC3S020					0.28	0.68				
KMC3S025					0.28	0.68				
KMC3S035	2.00	2.50	1.50	4.00	0.28	0.68	0.425	0.75	0.00	0.45
KMC3S050	3.00	3.50	1.50	1.80	0.28	0.68	0.125	0.75	0.08	0.45
KMC3S050-15					0.28	1.06				
KMC3S075					0.28	0.80				
KMC3S100					0.40	0.88				
KMC3S110					0.40	0.88				
KMC3S150					0.55	1.35				
KMC3S200					0.80	1.35				

SMD Type



■ Structure & Dimensions



(Unit: mm)

_	,	4	В		(D		Е	
Part No.	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max.)	(Min.)	(Max)
KMC5S010					0.50	0.90				
KMC5S014					0.50	0.90				
KMC5S020					0.50	0.90				
KMC5S035					0.28	0.68				
KMC5S050					0.28	0.68				
KMC5S075					0.28	0.68				
KMC5S075-24					0.60	1.20				
KMC5S075-33					0.60	1.20				
KMC5S110					0.28	0.68				
KMC5S110-16					0.60	1.00				
KMC5S110-24	4.37	4.73	3.07	3.41	0.60	1.00	0.20	1.2	0.15	0.65
KMC5S110-33					0.80	1.60				
KMC5S125					0.28	0.68				
KMC5S125-16					0.30	1.25				
KMC5S150					0.28	0.68				
KMC5S150-12					0.60	1.00				
KMC5S150-24					0.70	1.50				
KMC5S160					0.28	0.68				
KMC5S200					0.35	0.85				
KMC5S260					0.35	0.90				
KMC5S300					0.60	1.20				



■ Electrical Characteristics at 23°C

						Pd	Maxii	mum	Resis	tance	Sat	ety
Part No.	Marking	Vmax.	Imax.	lhold	Itrip	(Max.)		to Trip	Initial Ri	Post Trip R1	Appr	-
	inag	(V _{dc})	(A)	(A)	(A)	(W)	Current	Time	Min. (Ω)	May(○)	UL/cUL	TUV
		(V dc)	(A)	(A)	(A)	(۷۷)	(A)	(Sec.)	IVIIII. (52)	$Max(\Omega)$	OL/COL	100
KMC1S010	1	15	40	0.10	0.30	0.50	0.50	1.00	0.900	6.000	√	\checkmark
KMC1S020	2	9	40	0.20	0.50	0.50	1.00	0.60	0.550	3.500	√	\checkmark
KMC1S025	5	9	40	0.25	0.55	0.50	8.00	0.08	0.500	3.000	√	V
KMC1S035	7	6	40	0.35	0.75	0.50	8.00	0.10	0.200	1.000	√	√
KMC2S010	D	15	100	0.10	0.30	0.50	0.50	1.50	1.000	6.000	√	√
KMC2S010-24	D	24	100	0.10	0.30	0.50	0.50	1.50	1.000	6.000	√	√
KMC2S020	L	9	100	0.20	0.50	0.50	8.00	0.02	0.650	3.500	√	V
KMC2S035	Т	6	100	0.35	0.75	0.50	8.00	0.10	0.250	1.200	√	V
KMC2S050	0	6	100	0.50	1.00	0.50	8.00	0.10	0.150	0.850	√	√
KMC2S075	Х	6	100	0.75	1.50	0.50	8.00	0.20	0.090	0.350	√	V
KMC3S005	TH	60	100	0.05	0.15	0.40	0.25	1.50	3.600	50.000	√	V
KMC3S010	TY	60	100	0.10	0.25	0.40	0.50	1.00	1.600	15.000	√	√
KMC3S012	TJ	30	100	0.125	0.29	0.50	1.00	0.20	1.400	6.000	√	V
KMC3S016	TK	30	100	0.16	0.37	0.50	1.00	0.30	1.100	4.500	√	V
KMC3S020	TL	24	100	0.20	0.42	0.60	8.00	0.10	0.650	2.600	√	√
KMC3S025	TN	16	100	0.25	0.50	0.60	8.00	0.08	0.550	2.300	√	√
KMC3S035	TP	16	100	0.35	0.75	0.60	8.00	0.10	0.300	1.200	√	V
KMC3S050	TQ	8	100	0.50	1.00	0.60	8.00	0.10	0.150	0.700	√	√
KMC3S050-15	TQ1	15	100	0.50	1.00	0.60	8.00	0.10	0.150	0.700	√	V
KMC3S075	TR	8	100	0.75	1.50	0.60	8.00	0.10	0.100	0.290	√	√
KMC3S100	TS	6	100	1.00	1.80	0.80	8.00	0.30	0.065	0.210	√	√
KMC3S110	TU	8	100	1.10	2.20	0.80	8.00	0.10	0.070	0.200	√	√
KMC3S150	TV	8	100	1.50	3.00	0.80	8.00	0.30	0.040	0.120	√	√
KMC3S200	TX	6	100	2.00	3.50	1.00	8.00	1.50	0.020	0.080	√	√

Note: UL&cUL File No: E138827

TUV File No: R50143386, J50218395



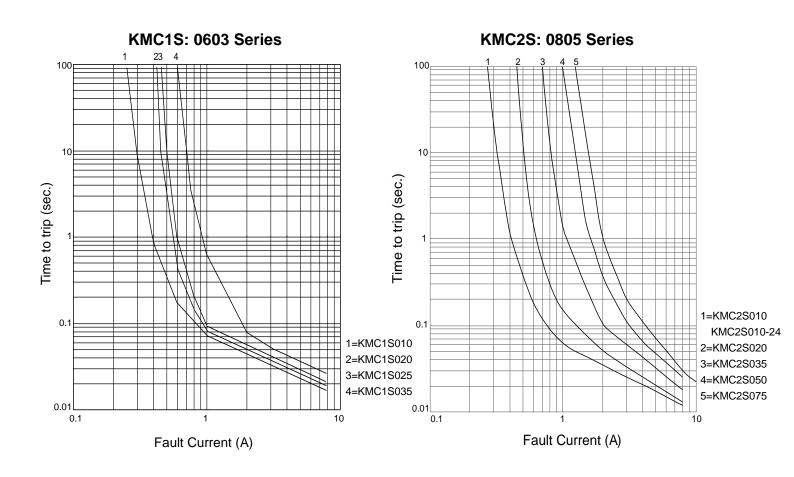
						Pd	Maxi	mum	Resis	stance	Saf	etv
Part No.	Marking	Vmax.	lmax.	lhold	Itrip	(Max.)	Time t		Initial Ri	Post Trip R1	Appro	•
T diviso.	Walking	(V _{dC})	(A)	(A)	(A)	(W)	Current (A)	Time (Sec.)	Min. (Ω)	$Max(\Omega)$	UL/cUL	TUV
KMC5S010	T 010	30	100	0.10	0.30	0.80	0.50	1.50	1.600	15.000	√	√
KMC5S014	T 014	60	10	0.14	0.34	0.80	1.50	0.15	1.500	6.000	V	√
KMC5S020	T 020	30	100	0.20	0.40	0.80	8.00	0.02	0.800	5.000	√	√
KMC5S035	T 035	16	100	0.35	0.70	0.80	8.00	0.10	0.320	1.500	√	√
KMC5S050	T 050	16	100	0.50	1.00	0.80	8.00	0.15	0.150	1.000	V	√
KMC5S075	T 075	16	100	0.75	1.50	0.80	8.00	0.20	0.110	0.450	V	√
KMC5S075-24	T 075	24	100	0.75	1.50	0.80	8.00	0.20	0.110	0.400	V	√
KMC5S075-33	T 075	33	20	0.75	1.50	0.80	8.00	0.20	0.110	0.400	V	\checkmark
KMC5S110	T 110	8	100	1.10	2.20	0.80	8.00	0.30	0.040	0.210	V	√
KMC5S110-16	T ₁₆	16	100	1.10	2.20	0.80	8.00	0.50	0.060	0.180	V	\checkmark
KMC5S110-24	T ₂₄ ¹¹⁰	24	20	1.10	2.20	0.80	8.00	0.50	0.060	0.200	V	√
KMC5S110-33	T ₃₃ ¹¹⁰	33	20	1.10	2.20	0.80	8.00	0.50	0.060	0.200	V	\checkmark
KMC5S125	T 125	6	100	1.25	2.50	0.80	8.00	0.40	0.050	0.140	V	√
KMC5S125-16	T ₁₆ ¹²⁵	16	100	1.25	2.50	0.80	8.00	0.40	0.050	0.140	V	√
KMC5S150	T 150	8	100	1.50	3.00	0.90	8.00	0.30	0.040	0.110	V	√
KMC5S150-12	T ₁₂ ¹⁵⁰	12	100	1.50	3.00	0.90	8.00	0.50	0.040	0.110	V	√
KMC5S150-24	T ₂₄ ¹⁵⁰	24	20	1.50	3.00	0.90	8.00	1.50	0.040	0.120	√	√
KMC5S160	T 160	8	100	1.60	3.20	0.80	8.00	1.00	0.030	0.100	√	√
KMC5S200	T 200	8	100	2.00	3.50	1.20	8.00	2.00	0.020	0.060	V	√
KMC5S260	T 260	8	100	2.60	5.00	1.20	8.00	2.50	0.015	0.047	√	√
KMC5S300	T 300	6	100	3.00	5.00	1.20	8.00	4.00	0.012	0.040	√	√

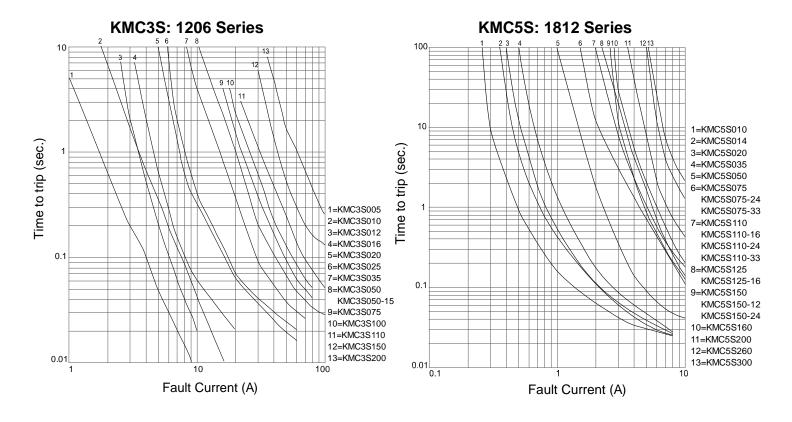
Note: UL&cUL File No: E138827

TUV File No: R50143386, J50218395



■ Typical Time to Trip Curve at 23°C



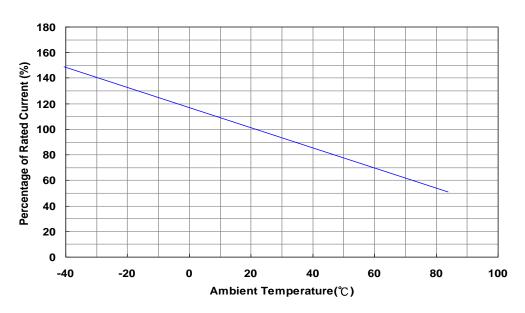


SMD Type



■ KMC1S (0603) Series Ihold & Itrip Thermal Derating Curve

Derating Curve for KMC1S (0603) Series

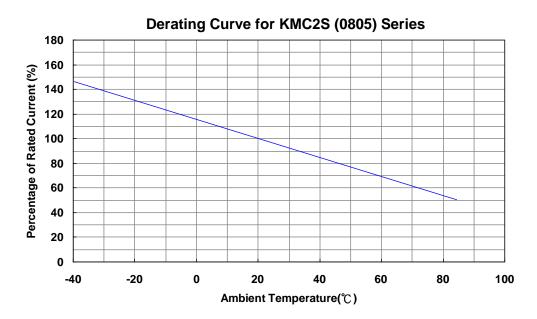


KMC1S (0603) Series Ihold Thermal Derating Chart

Part No.	Ambient Temperature												
Fait NO.	-40°C	-20 ℃	0℃	23 ℃	40 ℃	50 ℃	60 ℃	70 ℃	85 ℃				
KMC1S010	0.13	0.12	0.11	0.10	0.08	0.07	0.06	0.05	0.03				
KMC1S020	0.27	0.25	0.23	0.20	0.17	0.14	0.12	0.10	0.07				
KMC1S025	0.32	0.29	0.27	0.25	0.21	0.18	0.16	0.14	0.10				
KMC1S035	0.47	0.41	0.38	0.35	0.29	0.26	0.24	0.20	0.14				



■ KMC2S (0805) Series Ihold & Itrip Thermal Derating Curve

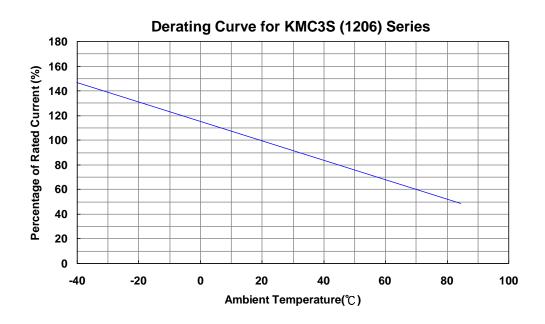


KMC2S (0805) Series Ihold Thermal Derating Chart

Part No.	Ambient Temperature											
Part No.	-40°C	-20 ℃	0℃	23 ℃	40 ℃	50 ℃	60℃	70 ℃	85 ℃			
KMC2S010	0.14	0.12	0.11	0.10	0.08	0.07	0.06	0.05	0.03			
KMC2S010-24	0.14	0.12	0.11	0.10	0.08	0.07	0.06	0.05	0.03			
KMC2S020	0.28	0.25	0.23	0.20	0.17	0.14	0.12	0.10	0.07			
KMC2S035	0.47	0.44	0.39	0.35	0.30	0.27	0.24	0.20	0.14			
KMC2S050	0.68	0.62	0.55	0.50	0.40	0.37	0.33	0.29	0.23			
KMC2S075	1.00	0.90	0.79	0.75	0.63	0.57	0.53	0.41	0.34			



KMC3S (1206) Series Ihold & Itrip Thermal Derating Curve

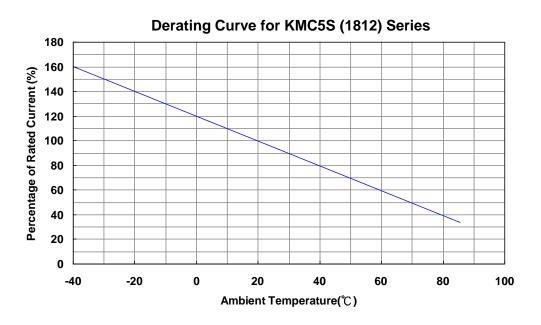


■ KMC3S (1206) Series Ihold Thermal Derating Chart

Part no				Ambi	ent Temper	ature			
Part no	-40°C	-20 ℃	0℃	23℃	40 ℃	50 ℃	60℃	70 ℃	85℃
KMC3S005	0.0725	0.063	0.057	0.05	0.043	0.038	0.035	0.03	0.026
KMC3S010	0.145	0.133	0.115	0.10	0.085	0.075	0.07	0.06	0.055
KMC3S012	0.20	0.17	0.15	0.12	0.11	0.10	0.09	0.08	0.07
KMC3S016	0.21	0.20	0.18	0.16	0.14	0.13	0.12	0.11	0.09
KMC3S020	0.34	0.30	0.26	0.20	0.17	0.15	0.13	0.11	0.08
KMC3S025	0.37	0.33	0.29	0.25	0.22	0.20	0.17	0.15	0.12
KMC3S035	0.50	0.45	0.40	0.35	0.30	0.27	0.24	0.18	0.15
KMC3S050	0.71	0.64	0.57	0.50	0.42	0.39	0.35	0.31	0.25
KMC3S050-15	0.71	0.64	0.57	0.50	0.42	0.39	0.35	0.31	0.25
KMC3S075	1.14	1.01	0.88	0.75	0.65	0.59	0.54	0.49	0.41
KMC3S100	1.45	1.31	1.15	1.00	0.84	0.77	0.69	0.61	0.48
KMC3S110	1.64	1.46	1.30	1.06	0.92	0.83	0.80	0.65	0.52
KMC3S150	2.18	1.94	1.72	1.50	1.28	1.17	1.06	0.96	0.77
KMC3S200	2.92	2.64	2.35	2.00	1.79	1.64	1.50	1.22	1.14



KMC5S (1812) Series Ihold & Itrip Thermal Derating Curve



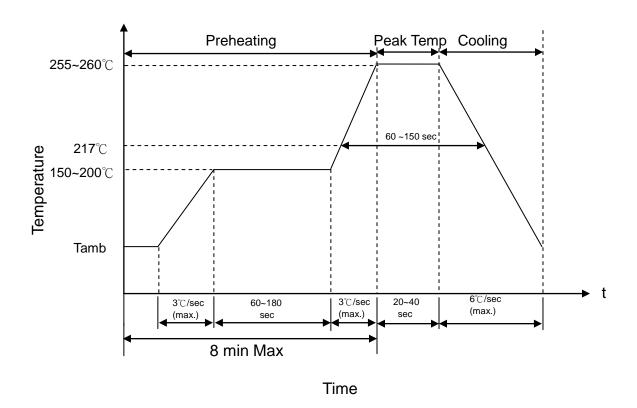
■ KMC5S (1812) Series Ihold Thermal Derating Chart

Dort no				Ambi	ent Temper	ature			
Part no	-40°C	-20 ℃	0℃	23℃	40 ℃	50 ℃	60℃	70 ℃	85℃
KMC5S010	0.16	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.03
KMC5S014	0.23	0.19	0.17	0.14	0.12	0.10	0.09	0.08	0.06
KMC5S020	0.29	0.26	0.23	0.20	0.17	0.15	0.14	0.12	0.10
KMC5S035	0.50	0.45	0.40	0.35	0.29	0.26	0.24	0.21	0.19
KMC5S050	0.77	0.68	0.59	0.50	0.44	0.40	0.37	0.33	0.29
KMC5S075	1.15	1.01	0.88	0.75	0.65	0.60	0.55	0.49	0.43
KMC5S075-24	1.06	0.95	0.84	0.75	0.60	0.55	0.50	0.45	0.37
KMC5S075-33	1.10	1.00	0.88	0.75	0.66	0.60	0.55	0.47	0.36
KMC5S110	1.59	1.43	1.26	1.10	0.95	0.87	0.80	0.71	0.60
KMC5S110-16	1.58	1.43	1.27	1.10	0.95	0.85	0.77	0.71	0.58
KMC5S110-24	1.55	1.40	1.25	1.10	0.93	0.83	0.73	0.63	0.50
KMC5S110-33	1.55	1.40	1.25	1.10	0.93	0.83	0.73	0.63	0.50
KMC5S125	2.00	1.75	1.52	1.25	1.00	0.95	0.90	0.75	0.53
KMC5S125-16	2.00	1.75	1.52	1.25	1.00	0.95	0.90	0.75	0.53
KMC5S150	2.30	2.03	1.76	1.50	1.25	1.10	1.00	0.80	0.76
KMC5S150-12	2.04	1.88	1.68	1.50	1.25	1.10	1.00	0.80	0.60
KMC5S150-24	2.05	1.87	1.67	1.50	1.25	1.08	0.95	0.77	0.60
KMC5S160	2.27	2.05	1.83	1.60	1.35	1.25	1.15	1.00	0.85
KMC5S200	2.60	2.44	2.22	2.00	1.80	1.60	1.50	1.07	0.80
KMC5S260	3.40	3.16	2.80	2.60	2.34	2.08	1.95	1.39	1.04
KMC5S300	4.15	3.76	3.46	3.00	2.55	2.28	2.01	1.61	1.33

SMD Type

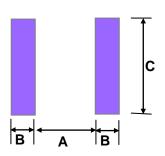


- Recommended Soldering Condition
 - IR-Reflow Soldering Profile



Recommended Soldering Pad Dimensions (Nominal)

				(Unit:mm)
Series	Size	Α	В	С
KMC1S	0603	0.80	1.00	1.00
KMC2S	0805	1.20	1.00	1.50
KMC3S	1206	2.00	1.00	1.90
KMC5S	1812	3.45	1.78	3.50



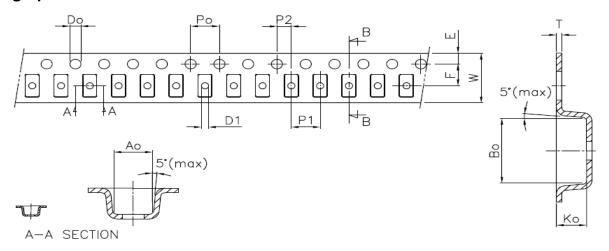


■ Reliability

Item	Standard	Test Condition / Methods	Criteria			
Passive Aging	IEC 60738-1	85±5°ℂ, 1000±24hrs	±10% typical resistance change			
Humidity Aging	Specification Standard	85±5°C, 80~85%RH, 100±5hrs	±5% typical resistance change			
Rapid Change of	IEC 60738-1	85±5/-40±5°C, 20 cycles,	220/ typical registance change			
Temperature	IEC 00730-1	Duration:30min	-33% typical resistance change			
Overload	UL 1434	Vmax,120% lmax ,50 cycles	No visible damage			
Endurance	OL 1434	Vmax,300% ltrip ,6000 cycles	NO VISIBLE damage			
Trip Endurance	UL 1434	Vmax, Itrip≦ I≦Imax , 1000±24hrs	No visible damage			
Solderability	IEC 60068-2-58	$245 \pm 5 ^{\circ}\mathrm{C}$, $3 \pm 0.3 \mathrm{sec}$	At least 95% of terminal electrode is covered by new solder.			

■ Package

Taping Specification



♦ KMC1S Series: SMD 0603 Type

For KMC1S010, KMC1S020, KMC1S025

(Unit:mm)

Index	A ₀ ±0.05	B ₀ ±0.05	K₀ ±0.05	P ₀ ±0.10	P ₁ ±0.10	P ₂ ±0.05	T ±0.05	E ±0.10	F ±0.05	D ₀ +0.10/-0	D ₁ +0.10 -0.05	W +0.30 -0.10	10P ₀ ±0.20
0603	1.10	1.85	0.60	4.00	4.00	2.00	0.20	1.75	3.50	1.50	0.50	8.00	40.00



For KMC1S035

(Unit:mm)

Index	A_0	B ₀	K_0	P_0	P ₁	P ₂	T +0.05	Е	F	D_0	D_1	W	10P ₀
Size	±0.10	±0.15	±0.05	±0.10	±0.10	±0.05	-0.08	±0.10	±0.05	±0.05	Min.	±0.20	±0.20
0603	1.10	1.85	0.75	4.00	4.00	2.00	0.23	1.75	3.50	1.55	0.40	8.00	40.00

◆ KMC2S Series: SMD 0805 Type

(Unit:mm)

Index	A ₀	B ₀	K ₀	P ₀	P ₁	P ₂	Т	E	F	D ₀	D ₁	W	10P ₀
Size	±0.10	±0.10	±0.05	±0.08	±0.10	±0.05	±0.10	±0.10	±0.05	±0.05	Min.	±0.10	±0.20
0805	1.60	2.30	0.90	4.00	4.00	2.00	0.25	1.75	3.50	1.55	1.00	8.00	40.00

♦ KMC3S Series: SMD 1206 Type

For KMC3S005, KMC3S010, KMC3S050-15, KMC3S100, KMC3S110, KMC3S150, KMC3S200

(Unit:mm)

Index	A ₀	B ₀	K ₀	P ₀	P ₁	P ₂	Т	Е	F	D ₀	D ₁	W	10P ₀
Size	+0.1/-0	+0.1/-0	±0.05	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.05	Min.	±0.30	±0.20
1206	1.95	3.55	1.40	4.00	4.00	2.00	0.23	1.75	3.50	1.55	1.00	8.00	40.00

For KMC3S012, KMC3S016, KMC3S020, KMC3S025, KMC3S035, KMC3S050, KMC3S075

(Unit:mm)

Index	A_0	B_0	K_0	P_0	P_1	P_2	Т	Е	F	D_0	D_1	W	10P ₀
Size	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.05	Min.	±0.30	±0.20
1206	1.85	3.45	0.85	4.00	4.00	2.00	0.23	1.75	3.50	1.55	1.00	8.00	40.00

♦ KMC5S Series: SMD 1812 Type

For KMC5S010, KMC5S014, KMC5S020, KMC5S075-24, KMC5S075-33, KMC5S110-16, KMC5S110-24, KMC5S110-33, KMC5S125-16, KMC5S150-12, KMC5S150-24, KMC5S260, KMC5S300

(Unit:mm)

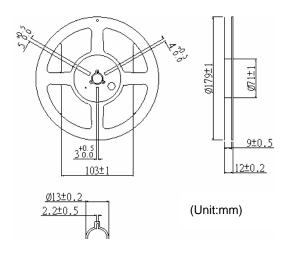
Index	A_0	B ₀	K_0	P_0	P ₁	P ₂	Т	Е	F	D_0	D_1	W	10P ₀
Size	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.05	Min.	±0.30	±0.20
1812	3.56	4.94	1.70	4.00	8.00	2.00	0.25	1.75	5.50	1.55	1.50	12.00	40.00

For KMC5S035, KMC5S050, KMC5S075, KMC5S110, KMC5S125, KMC5S150, KMC5S160, KMC5S200 (Unit:mm)

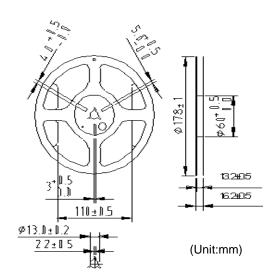
Index	A ₀	B ₀	K ₀	P ₀	P ₁	P ₂	Т	Е	F	D_0	D_1	W	10P ₀
Size	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.03	±0.10	±0.10	±0.05	Min.	±0.30	±0.20
1812	3.50	5.00	0.90	4.00	8.00	2.00	0.25	1.75	5.50	1.55	1.50	12.00	40.00



Quantity



Size	Part no	Quantity (pcs/reel)
0603	KMC1S010, KMC1S020, KMC1S025	6,000
	KMC1S035	5,000
0805	For all parts	4,000
4000	For KMC3S005, KMC3S010, KMC3S050-15, KMC3S100, KMC3S110, KMC3S150, KMC3S200	2,500
1206	For KMC3S012 \ KMC3S016 \ KMC3S020 \ KMC3S025 \ KMC3S050 \ KMC3S050 \ KMC3S075	5,000



Size	Part no	Quantity (pcs/reel)
1812	For KMC5S010, KMC5S014, KMC5S020, KMC5S075-24, KMC5S075-33, KMC5S110-16, KMC5S110-24, KMC5S110-33, KMC5S125-16, KMC5S150-12, KMC5S150-24, KMC5S260, KMC5S300	1,000
	For KMC5S035、KMC5S050、 KMC5S075、KMC5S110、 KMC5S125、KMC5S150、 KMC5S160、 KMC5S200	2,000

■ Warehouse Storage Conditions of Products

- Storage Conditions:
 - 1. Storage Temperature: -10 $^{\circ}$ C ~+ 40 $^{\circ}$ C
 - 2. Relative humidity: ≤75%RH
 - 3. Thermistors must be kept away from sunlight and stored in a non-corrosive atmosphere.
- Period of Storage: 1 year