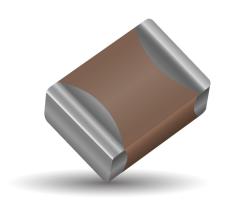
KYOCERa

General Description



APPLICATIONS

General purpose function in low voltage applications:

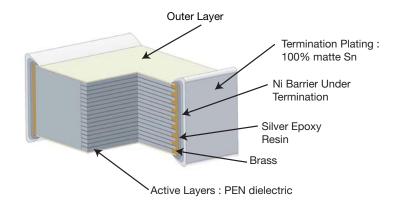
- Filtering, coupling, decoupling
- · Time-constant
- · Oscillation timing circuit Typical applications would be:
- · Automotive (navigation system ...)
- Telecom (GSM PLL circuit, ADSL system ...)
- Industrial (Lighting and power supplies...)

GENERAL DESCRIPTION

Film chip capacitor using a naked and stacked construction with metallized PolyPhenylene Sulfide film (PPS).

ADVANTAGES

- · Applicable for both flow and reflow soldering.
- · Very constant Capacitance value with temperature.
- · Low dielectric absorption.
- The intrinsic elasticity of the dielectric film provides an excellent compatibility of the capacitor with all types of material for printed circuit boards.
- Excellent thermal shock resistance.
- Low dissipation factor, ESR and ESL.
- No piezoelectric effect.
- Available in tape and reel suitable for automatic placement.
- · Non-polar construction.



PERFORMANCE CHARACTERISTICS

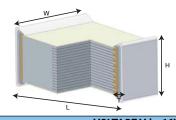
Climatic Category	55/125/56			
Capacitance Range	1nF to 180nF			
Tolerance on C _R	±2%, ±5%, ±10%			
Nominal Voltages	16Vdc to 50Vdc			
Test Voltage	1.4Vr 2 sec. at 25°C			
Soldering methods	IR vapor phase reflow			
Tangent of Loss Angle at 1kHz (DF)	< 50 x 10 ⁻⁴			
Insulation resistance minimum : IR	for C ≤ 0.33μF IR > 1000 MΩ at 20°C			
insulation resistance minimum . IK	for 1 min. charge at 10VDC for VR < 100VDC			
Temperature range	-55°C to 125°C			
A.C. applications for high frequency A.C. application please check with AVX				

No self-healing properties



Capacitance Values & Nominal Voltages

CAPACITANCE VALUES (CR) AND NOMINAL VOLTAGES (VR)



millimeters (inches)

		VOLTAGE Vdc: 16V Vac: 10V												
Capacitance Range (CR)	Ordering Code		*Toler (pag	nensions ances je 6)	ances Tape Dimensions e 6)					el Dimens		Packaging Unit		Reel Pkg Code
		L	W	H max	T	W	P1	K0	Α	W1	W2 max	Bulk	Reel	Couc
0.001µF	CB018B0102+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0012	CB018B0122+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0015	CB018B0152+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0018	CB018B0182+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0022	CB018B0222+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0027	CB018B0272+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0033	CB018B0332+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0047	CB018B0472+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0056	CB018B0562+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0068	CB018B0682+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	BA
0.0082	CB018B0822+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.010µF	CB018B0103+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.012	CB018B0123+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.015	CB018B0153+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	BA
0.018	CB018B0183+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.022	CB018B0223+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.027	CB018B0273+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.033	CB018B0333+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.039	CB018B0393+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.047	CB028B0473+	3.30 (0.130)	2.50 (0.098)	1.80 (0.071)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.90 (0.075)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	2500	ВА
0.056	CB028B0563+	3.30 (0.130)	2.50 (0.098)	1.80 (0.098)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.90 (0.075)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	2500	BA
0.068	CB028B0683+	3.30 (0.130)	2.50 (0.098)	1.80 (0.071)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.90 (0.075)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	2500	ВА
0.082	CB028B0823+	3.30 (0.130)	2.50 (0.098)	1.80 (0.071)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.90 (0.075)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	2500	ВА

For other Values: upon request

Replace the + by the tolerance code: G = 2%, J = 5% or K = 10%

Replace the -- by the packaging suffix: -- = bulk

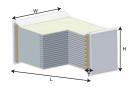
BA or BC = tape & reel





Capacitance Values & Nominal Voltages

CAPACITANCE VALUES (CR) AND NOMINAL VOLTAGES (VR)



millimeters (inches)

		VOLTAGE Vdc: 16V Vac: 10V												
Capacitance Range (CR)	Ordering Code	Chip Dimensions *Tolerances (page 6)			Тар	e Dimens	ions	Reel Dimensions			Packaging Unit		Reel Pkg	
		L	W	H max	Т	W	P1	K0	Α	W1	W2 max	Bulk	Reel	Code
0.100µF	CB028B0104+	3.30 (0.130)	2.50 (0.098)	2.10 (0.083)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	2.33 (0.092)	180 (7.087)	8.4 (0.331)	14.4 (0.567)	2000	2000	ВА
0.120	CB038B0124+	4.50 (0.177)	3.20 (0.126)	2.30 (0.091)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	180 (7.087)	12.4 (0.488)	18.4 (0.724)	1500	900	ВА
0.120	CD030D01241	4.50 (0.177)	3.20 (0.126)	2.30 (0.091)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	330 (12.99)	12.4 (0.488)	18.4 (0.724)	1500	3600	ВС
0.150	CB038B0154+	4.50 (0.177)	3.20 (0.126)	2.30 (0.091)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	180 (7.087)	12.4 (0.488)	18.4 (0.724)	1500	900	ВА
0.130	CD030D01341 =	4.50 (0.177)	3.20 (0.126)	2.30 (0.091)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	330 (12.99)	12.4 (0.488)	18.4 (0.724)	1500	3600	ВС
0.180	CB038B0184+	4.50 (0.177)	3.20 (0.126)	2.50 (0.098)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	180 (7.09)	12.4 (0.488)	18.4 (0.724)	1500	900	BA
0.160	CB036B0164 +	4.50 (0.177)	3.20 (0.126)	2.50 (0.098)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	330 (12.99)	12.4 (0.488)	18.4 (0.724)	1500	3600	ВС
							VOLTAGE	Vdc: 50V	Vac: 40\	1				
0.001µF	CB018D0102+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0012	CB018D0122+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0015	CB018D0152+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.147)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0018	CB018D0182+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0022	CB018D0222+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0027	CB018D0272+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0033	CB018D0332+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0047	CB018D0472+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0056	CB018D0562+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0068	CB018D0682+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.0082	CB018D0822+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.010µF	CB018D0103+	3.30 (0.130)	1.60 (0.063)	1.15 (0.045)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.20 (0.047)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	3500	ВА
0.012	CB028D0123+	3.30 (0.130)	2.50 (0.098)	1.80 (0.071)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.90 (0.075)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	2500	ВА
0.015	CB028D0153+	3.30 (0.130)	2.50 (0.098)	1.80 (0.071)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.90 (0.158)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	2500	ВА
0.018	CB028D0183+	3.30 (0.130)	2.50 (0.098)	1.80 (0.071)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	1.90 (0.075)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	2500	ВА
0.022	CB028D0223+	3.30 (0.130)	2.50 (0.098)	1.80 (0.071)	0.50 (0.020)	8.00	4.00 (0.158)	1.90 (0.075)	180 (7.087)	8.40	14.4 (0.567)	2000	2500	ВА

For other Values: upon request

Replace the + by the tolerance code: G = 2%, J = 5% or K = 10%

Replace the – by the packaging suffix: -- = bulk

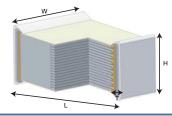
BA or BC = tape & reel





Capacitance Values & Nominal Voltages

CAPACITANCE VALUES (CR) AND NOMINAL VOLTAGES (VR)



millimeters (inches)

		VOLTAGE Vdc: 50V Vac: 40V												
Capacitance Range (CR)	Ordering Code			Tape Dimensions			Reel Dimensions			Packaging Unit		Reel Pkg		
		L	W	H max	Т	W	P1	K0	Α	W1	W2 max	Bulk	Reel	Code
0.027	CB028D0273+	3.30 (0.130)	2.50 (0.098)	2.10 (0.083)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	2.30 (0.091)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	2000	ВА
0.033	CB028D0333+	3.30 (0.130)	2.50 (0.098)	2.10 (0.083)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	2.30 (0.091)	180 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	2000	ВА
0.039	CB028D0393+	3.30 (0.130)	2.50 (0.098)	2.1 (0.083)	0.50 (0.020)	8.00 (0.315)	4.00 (0.158)	2.30 (0.091)	181 (7.087)	8.40 (0.331)	14.4 (0.567)	2000	2000	ВА
0.047	CB038D0473+	4.50 (0.1777)	3.20 (0.126)	2.4 (0.095)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	180 (7.087)	12.4 (0.488)	18.4 (0.724)	1500	900	ВА
0.047	00000004731	4.50 (0.177)	3.20 (0.126)	2.4 (0.095)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	330 (12.99)	12.4 (0.488)	18.4 (0.724)	1500	3600	ВС
0.056	CB038D0563+	4.50 (0.177)	3.20 (0.126)	2.40 (0.095)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	180 (7.087)	12.4 (0.488)	18.4 (0.724)	1500	900	ВА
0.030	CB030D03031	4.50 (0.177)	3.20 (0.126)	2.40 (0.095)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	330 (12.99)	12.4 (0.488)	18.4 (0.724)	1500	3600	ВС
0.068	CB038D0683+	4.50 (0.177)	3.20 (0.126)	2.40 (0.095)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	180 (7.087)	12.4 (0.488)	18.4 (0.724)	1500	900	ВА
0.008	CB036D0063+	4.50 (0.177)	3.20 (0.126)	2.40 (0.095)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	330 (12.99)	12.4 (0.488)	18.4 (0.724)	1500	3600	ВС
0.082	CB038D0823+	4.50 (0.177)	3.20 (0.126)	2.40 (0.095)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	180 (7.087)	12.4 (0.488)	18.4 (0.724)	1500	900	ВА
0.002	CB030D00Z3+	4.50 (0.177)	3.20 (0.126)	2.40 (0.095)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	330 (12.99)	12.4 (0.488)	18.4 (0.724)	1500	3600	ВС
0.100µF	CB038D0104+	4.50 (0.177)	3.20 (0.126)	2.40 (0.095)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	180 (7.087)	12.4 (0.488)	18.4 (0.724)	1500	900	ВА
ο. τουμε	CB036D0104+	4.50 (0.177)	3.20 (0.126)	2.40 (0.095)	0.60 (0.024)	12.0 (0.472)	8.00 (0.315)	2.60 (0.102)	330 (12.99)	12.4 (0.488)	18.4 (0.724)	1500	3600	ВС

For other Values: upon request

G = 2%, J = 5% or K = 10% Replace the + by the tolerance code:

Replace the -- by the packaging suffix: -- = bulk

BA or BC = tape & reel



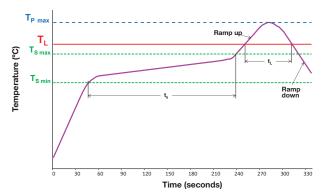
Mounting and Soldering Recommendations

MOUNTING AND SOLDERING RECOMMENDATIONS **SOLDERING PROFILE**

The capacitors can be mounted using infrared and vapor phase soldering following recommended below. They are NOT suitable for wave soldering.

All temperature refer to topside of the package, measured on the package body surface.

Profile Feature	1206 to 1812		
Ramp-Up (T _{s max} to T _p)	3°C / second max		
Preheat			
- Temperature Min (T _{s min})	150°C		
- Temperature Max (T _{s max})	200°C		
- Time (t _{s min} to t _{s max})	180 sec. max		
Time maintained above			
- Temperature (T ₁)	217°C		
- Time (t _i)	60 sec. max		
Peak temperature (T _{p.max})	260°C		
Customer Peak temperature (Tp)	< 260°C		
Time within 5°C of peak	10 sec.		
temperature (T _p -5°C)*	10 300.		
Ramp-Down	6°C / sec.		

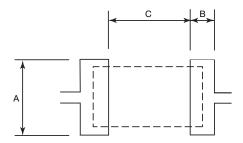


^{*} Example : T_p = 238.5°C =>> t_p = time between 238.5°C and 233.5°C (T_p-5°C)

RECOMMENDED SOLDER PASTE THICKNESS

For optimum solderability, the recommended soldering paste thickness: 1206 to 1812:150 to 200µm

In case of hand soldering, the temperature of the soldering iron should not be above 250°C. Special care must be taken to avoid touching the capacitor body with the iron tip.



PAD DIMENSIONS: MILLIMETERS (INCHES)

Size Code	Case Size	Α	В	O
01	1206	1.30 (0.051)	1.30 (0.051)	2.20 (0.087)
02	1210	2.00 (0.079)	1.30 (0.051)	2.20 (0.087)
03	1812	3.00 (0.118)	1.50 (0.059)	3.50 (0.137)

RECOMMENDED CLEANING

To clean flux from the PC board assembly, the recommended products are: ethanol, isopropyl alcohol, and deionized water wash. The cleaning products to avoid are: Toluene, Xylene, Trichloroethylene, Terpene Cleaner EC-7, surface active agent. In case of using another solvent, please contact us.

OTHER CAUTIONS

Flame retardancy: the dielectric film is not a flame retardant material.

Environment: contact us when chips are used in humid or gas atmosphere and /or when using resin.

Recommended handling: do not use edged tools, so not to damage the capacitors.

TIN WHISKERS TESTS: JEDEC STANDARD NO 22A121

Stress Type	Ref. Spec.	Test Conditions	Analysis	Results
Temperature cycling	JESD22-A104	-55°C +85(+10/-0)°C air 5 to 10 minutes soak 3 cycles/hour	SEM x 1000	Pass
Ambient Temperature / Humidity Storage		30+/-2°C - 60+/-3% RH -2000H	SEM x 1000	Pass
High Temperature / Humidity Storage		70+/-5°C - 93+3/-2% RH -1000H	SEM x 1000	Pass

[#] Reflow soldering referring to JEDEC Standard with some limitations

[#] JEDEC J-Std 020C

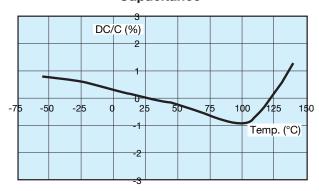


Electrical Characteristics versus Temperature and Frequency

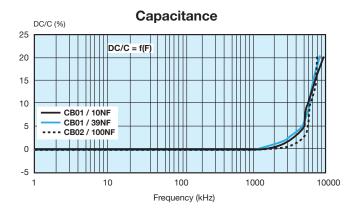
ELECTRICAL CHARACTERISTICS VERSUS TEMPERATURE AND FREQUENCY

ELECTRICAL CHARACTERISTICS

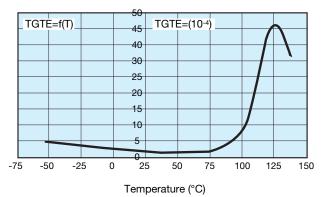
Capacitance



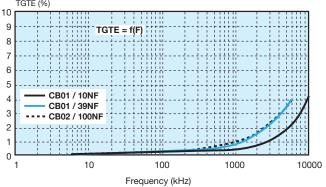
FREQUENCY CHARACTERISTICS



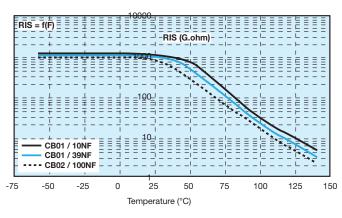
Dissipation Factor



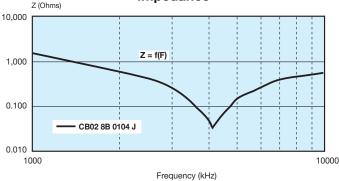
Dissipation Factor



Insulation Resistance



Impedance



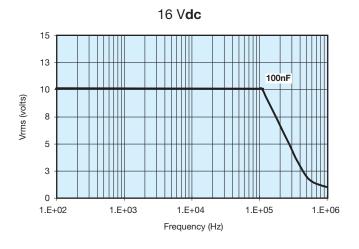


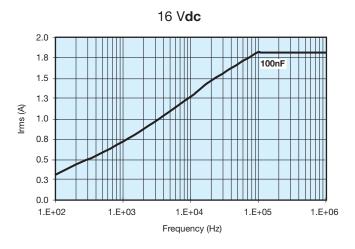
RMS Voltage and Current versus Frequency

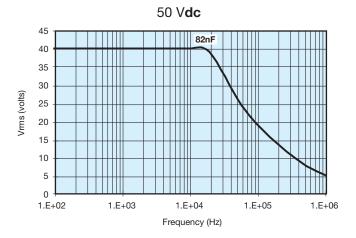
RMS VOLTAGE AND CURRENT VERSUS FREQUENCY

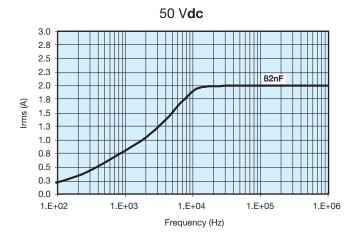
MAXIMUM VOLTAGE (VRMS) AND CURRENT (IRMS) VS FREQUENCY

Typical curves results from measurement carried out at ambient temperature (25°C) and sinusoidal wave-forms (for size CB01 to CB03)









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RoHS

MATERIALS CONTROLLED BY ROHS (PPM BY WEIGHT):

Mass / unit (g)	Lead	Mercury	Cadmium	Hexavalent Chromium	PBB	PBDE
CB range	0	0	0	0	0	0
RoHS Limit (ppm)	1000	1000	100	1000	1000	1000
Pass/Fail	Pass	Pass	Pass	Pass	Pass	Pass

This product has been tested and found to be compliant with all requirements, provisions, and exemptions of EU Directive 2002/95/EC of the European Parliament and Council of January 27, 2003. On the Restriction of use of certain Hazardous Substances (RoHS) in electrical and electronic equipment and EU Directive 2000/53/EC regarding ELV or End of Life Vehicle.

ROHS / ELV STATUS

External Plating

100% Matte Sn as standard

LEAD-FREE STATUS / MOISTURE SENSITIVITY RANKING

Pb Free Reflow Solder compliant, MSL = 2a.

Reflow soldering referring to Jedec Standard with some limitations. Additional JESD-97 data to be phased in MSL e3 termination.

PRODUCT LABELING:

(For informational purposes only to be phased in on reel and container.)

Pb Free: **RoHS Compliant:**





PRODUCT TRACEABILITY:

Full internal material traceability by reference to unique lot number marked on reel and external package.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

KYOCERA AVX:

 CB018B0102JBA
 CB028B0223JBA
 CB028B0473GBA
 CB028B0473JBA
 CB028B0823JBA
 CB028B104JBA

 CB028D0333JBA
 CB028B0683JBA
 CB018D0102JBA
 CB018D0222JBA
 CB018B0153J- CB028B0104JBA

 CB018D0103JBA
 CB018B0102KBA
 CB018B0103JBA
 CB018B0152GBA
 CB018B0182GBA
 CB018B0393JBA

 CB018B0682JBA
 CB018D0222KBA
 CB028B0104GBA
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 CB028D0153JBA
 CB028D0183GBA

 CB028D0273JBA
 CB028D0333GBA
 CB028D0393GBA
 CB028D0223GBA
 CB018D0332J- CB018B0103GBA

 CB018B0392JBA
 CB018B0393KBA
 CB018B0333JBA
 CB038D0473JBA
 CB028D0273GBA
 CB028D0123GBA

 CB038D0104GBA
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