A50 Series Metallized Polyester Film, Axial, 50 – 1,000 VDC

The Capacitance Company
KEMET CHARGED.

Overview

The A50 Series is constructed of metallized wound polyester film and encapsulated in self-extinguishing material meeting the requirements of UL 94 V–0. Protection consists of polyester tape wrapping and thermosetting resin end fill.

Applications

Typical applications include blocking, coupling, decoupling, bypassing and interference suppression in low voltage applications such as automotive. Not for use with the mains.

Benefits

- Voltage range: 50 – 1,000 VDC
- Capacitance range: 0.001 – 10 µF
- Diameter: 5 – 22 mm
- Length: 11 – 33 mm
- Capacitance tolerance: ±5%, ±10%, ±20%
- Climatic category: 55/105/56
- RoHS Compliant and lead-free terminations
- Tape and reel packaging in accordance with IEC 60286–1
- Operating temperature range of -55˚C to +105˚C

Part Number System

A50	C	F	3470	AA	00	J
Series	Rated Voltage (VDC)	Length (mm)	Capacitance Code (pF)	Lead and Packaging Code	Internal Use	Capacitance Tolerance
Metallized Polyester	C = 50 D = 63 E = 100 I = 250 M = 400 W = 500 P = 630	F = 11 H= 14 K = 20.5 Q = 28 T = 33	Digits 2 – 4 indicate the first three digits of the capacitance value. First digit indicates the number of zeros to be added.	See Ordering Options Table	00, 60 (Standard)	J = ±5% K = ±10% M = ±20%

Ordering Options Table

Type of Leads and Packaging	Lead Length (mm)	Lead and Packaging Code
Standard Lead and Packaging Options		
Bulk (Bag) – Straight Leads	40 +/-5	AA
Tape & Reel (Standard Reel)		26

© KEMET Electronics Corporation • P.O. Box 5928 • Greenville, SC 29606 (864) 963-6300 • www.kemet.com

Dimensions – Millimeters

D		L		d	
Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance
5.0	Maximum	11.0	Maximum	0.6	+/-0.05
5.0	Maximum	14.0	Maximum	0.6	+/-0.05
5.5	Maximum	14.0	Maximum	0.6	+/-0.05
6.0	Maximum	14.0	Maximum	0.6	+/-0.05
6.0	Maximum	20.5	Maximum	0.6	+/-0.05
6.5	Maximum	11.0	Maximum	0.6	+/-0.05
6.5	Maximum	20.5	Maximum	0.6	+/-0.05
6.5	Maximum	14.0	Maximum	0.6	+/-0.05
7.0	Maximum	14.0	Maximum	0.8	+/-0.05
7.0	Maximum	20.5	Maximum	0.8	+/-0.05
7.0	Maximum	28.0	Maximum	0.8	+/-0.05
7.5	Maximum	20.5	Maximum	0.8	+/-0.05
7.5	Maximum	14.0	Maximum	0.8	+/-0.05
8.0	Maximum	14.0	Maximum	0.8	+/-0.05
8.0	Maximum	20.5	Maximum	0.8	+/-0.05
8.0	Maximum	28.0	Maximum	0.8	+/-0.05
8.5	Maximum	20.5	Maximum	0.8	+/-0.05
8.5	Maximum	28.0	Maximum	0.8	+/-0.05
9.0	Maximum	20.5	Maximum	0.8	+/-0.05
9.0	Maximum	28.0	Maximum	0.8	+/-0.05
9.5	Maximum	20.5	Maximum	0.8	+/-0.05
9.5	Maximum	28.0	Maximum	0.8	+/-0.05
10.0	Maximum	20.5	Maximum	0.8	+/-0.05

Note: See Ordering Options Table for lead length (LL) options.

D		L		d	
Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance
10.0	Maximum	33.0	Maximum	0.8	+/-0.05
10.0	Maximum	28.0	Maximum	0.8	+/-0.05
10.5	Maximum	33.0	Maximum	0.8	+/-0.05
10.5	Maximum	28.0	Maximum	0.8	+/-0.05
11.0	Maximum	28.0	Maximum	0.8	+/-0.05
11.0	Maximum	33.0	Maximum	0.8	+/-0.05
11.5	Maximum	33.0	Maximum	0.8	+/-0.05
12.0	Maximum	20.5	Maximum	0.8	+/-0.05
12.0	Maximum	33.0	Maximum	0.8	+/-0.05
12.5	Maximum	33.0	Maximum	0.8	+/-0.05
12.5	Maximum	28.0	Maximum	0.8	+/-0.05
13.0	Maximum	33.0	Maximum	0.8	+/-0.05
13.5	Maximum	33.0	Maximum	0.8	+/-0.05
14.5	Maximum	33.0	Maximum	0.8	+/-0.05
15.0	Maximum	33.0	Maximum	0.8	+/-0.05
15.5	Maximum	33.0	Maximum	0.8	+/-0.05
16.0	Maximum	33.0	Maximum	0.8	+/-0.05
17.5	Maximum	33.0	Maximum	1	+/-0.05
18.5	Maximum	33.0	Maximum	1	+/-0.05
19.0	Maximum	33.0	Maximum	1	+/-0.05
22.0	Maximum	33.0	Maximum	1	+/-0.05

Note: See Ordering Options Table for lead length (LL) options.

Performance Characteristics

Rated Voltage V_R (VDC)	50	63	100	250	400	630	1000
Rated Voltage V_R (VAC)	30	40	63	160	200	220	250
Capacitance Range (µF)	0.47 – 10.0	0.33 – 10.0	0.1 – 10.0	0.047 – 10.0	0.01 – 3.3	0.001 – 1	0.001 – 0.47
Capacitance Tolerance	±5%, ±10%, ±20%						
Temperature Range	-55°C to 105°C						
Rated Temperature	+85°C						
Voltage Derating	Above +85°C DC and AC voltage derating is 1.25%/°C						
Climatic Category	55/105/56						
Self-Inductance	Maximum 1 nH per 1 mm lead and capacitor length						
Dissipation Factor	Measured at 25°C ±5°C						
		C ≤ 0.1 µF		0.1 µF < C ≤ 1 µF		C > 1 µF	
	1 kHz	0.80%		0.80%		1.00%	
	10 kHz	1.50%		1.50%			
	100 kHz	2.50%					
Insulation Resistance	Minimum Values Between Terminals						
			C ≤ 0.33 µF		C > 0.33 µF		
	V_R ≤ 100 VDC		3750 MΩ		1,000 MΩ • µF		
	V_R > 100 VDC		30,000 MΩ		10,000 MΩ • µF		
Test Voltage Between Terminals	1.6 x V_R applied for 2 seconds at 25°C ±5°C						

Maximum Voltage (V_{rms}) vs. Frequency (Sinusoidal Waveform/T ≤ +40ºC)

Maximum Current (I_{rms}) vs. Frequency (Sinusoidal Waveform/T ≤ +40ºC)

Environmental Test Data

Damp Heat, Steady State	
Test Conditions	
Temperature	+40°C ±2°C
Relative Humidity (RH)	93% ±2%
Test Duration	56 days
Performance	
Capacitance Change	Δ C/C ≤ 5%
DF Change (Δ tgδ)	≤ 50 x 10^{-4} at 1 kHz
Insulation Resistance	≥ 50% of initial limit

Endurance	
Test Conditions	
Temperature	+85°C ±2°C
Test Duration	2,000 hours
Voltage Applied	1.25 x V_R
Performance	
Capacitance Change	Δ C/C ≤ 5%
DF Change (Δ tgδ)	≤ 30 x 10^{-4} at 10 kHz for C ≤ 1 µF
	≤ 20 x 10^{-4} at 1 kHz for C > 1 µF
Insulation Resistance	≥ 50% of initial limit

Resistance to Soldering Heat	
Test Conditions	
Solder Bath Temperature	+260°C ±5°C
Dipping Time (with heat screen)	10 seconds ±1 second
Performance	
Capacitance Change	Δ C/C ≤2%
DF Change (Δ tgδ)	≤ 30 x 10^{-4} at 10 kHz for C ≤ 1 µF
	≤ 20 x 10^{-4} at 1 kHz for C > 1 µF
Insulation Resistance	≥ initial limit

Environmental Compliance

All KEMET pulse capacitors are RoHS Compliant.

RoHS Compliant

Table 1 – Ratings & Part Number Reference

VDC	VAC	Capacitance Value (µF)	Dimensions in mm		dV/dt (V/µs)	Max K_0 (V^2/µs)	New KEMET Part Number	Legacy Part Number
			D	L				
50	30	0.47	5.0	11.0	4.0	400	50CF3470(1)00(2)	A50CF3470(1)00(2)
50	30	0.68	5.0	11.0	4.0	400	50CF3680(1)00(2)	A50CF3680(1)00(2)
50	30	1.0	6.5	11.0	4.0	400	50CF4100(1)00(2)	A50CF4100(1)00(2)
50	30	1.5	7.0	14.0	4.0	400	50CH4150(1)00(2)	A50CH4150(1)00(2)
50	30	2.2	8.0	14.0	4.0	400	50CH4220(1)00(2)	A50CH4220(1)00(2)
50	30	3.3	7.5	20.5	2.0	200	50CK4330(1)00(2)	A50CK4330(1)00(2)
50	30	4.7	8.5	20.5	2.0	200	50CK4470(1)00(2)	A50CK4470(1)00(2)
50	30	6.8	10.0	20.5	2.0	200	50CK4680(1)00(2)	A50CK4680(1)00(2)
50	30	10.0	12.0	20.5	2.0	200	50CK5100(1)00(2)	A50CK5100(1)00(2)
63	40	0.33	5.0	11.0	4.0	500	50DF3330(1)60(2)	A50DF3330(1)60(2)
63	40	0.47	6.0	14.0	4.0	500	50DH3470(1)60(2)	A50DH3470(1)60(2)
63	40	0.68	6.0	14.0	4.0	500	50DH3680(1)60(2)	A50DH3680(1)60(2)
63	40	1.0	7.0	14.0	4.0	500	50DH4100(1)60(2)	A50DH4100(1)60(2)
63	40	1.5	6.5	20.5	2.0	250	50DK4150(1)60(2)	A50DK4150(1)60(2)
63	40	2.2	8.0	20.5	2.0	250	50DK4220(1)60(2)	A50DK4220(1)60(2)
63	40	3.3	9.5	20.5	2.0	250	50DK4330(1)60(2)	A50DK4330(1)60(2)
63	40	4.7	9.5	28.0	1.5	190	50DQ4470(1)60(2)	A50DQ4470(1)60(2)
63	40	6.8	11.0	28.0	1.5	190	50DQ4680(1)60(2)	A50DQ4680(1)60(2)
63	40	10.0	11.5	33.0	1.0	130	50DT5100(1)60(2)	A50DT5100(1)60(2)
100	63	0.10	5.0	11.0	5.0	1000	50EF3100(1)60(2)	A50EF3100(1)60(2)
100	63	0.15	5.0	11.0	5.0	1000	50EF3150(1)60(2)	A50EF3150(1)60(2)
100	63	0.22	5.0	11.0	5.0	1000	50EF3220(1)60(2)	A50EF3220(1)60(2)
100	63	0.33	6.0	14.0	5.0	1000	50EH3330(1)60(2)	A50EH3330(1)60(2)
100	63	0.47	6.0	14.0	5.0	1000	50EH3470(1)60(2)	A50EH3470(1)60(2)
100	63	0.68	7.0	14.0	5.0	1000	50EH3680(1)60(2)	A50EH3680(1)60(2)
100	63	1.0	7.0	20.5	3.0	600	50EK4100(1)60(2)	A50EK4100(1)60(2)
100	63	1.5	8.0	20.5	3.0	600	50EK4150(1)60(2)	A50EK4150(1)60(2)
100	63	2.2	9.5	20.5	3.0	600	50EK4220(1)60(2)	A50EK4220(1)60(2)
100	63	3.3	9.5	28.0	2.0	400	50EQ4330(1)60(2)	A50EQ4330(1)60(2)
100	63	4.7	10.0	33.0	1.0	300	50ET4470(1)60(2)	A50ET4470(1)60(2)
100	63	6.8	12.0	33.0	1.0	300	50ET4680(1)60(2)	A50ET4680(1)60(2)
100	63	10.0	14.5	33.0	1.0	300	50ET5100(1)60(2)	A50ET5100(1)60(2)
250	160	0.047	5.0	11.0	10.0	5000	50IF2470(1)60(2)	A50IF2470(1)60(2)
250	160	0.068	5.0	11.0	10.0	5000	50IF2680(1)60(2)	A50IF2680(1)60(2)
250	160	0.10	5.5	14.0	10.0	5000	50IH3100(1)60(2)	A50IH3100(1)60(2)
250	160	0.15	5.5	14.0	10.0	5000	50IH3150(1)60(2)	A50IH3150(1)60(2)
250	160	0.22	6.5	14.0	10.0	5000	50IH3220(1)60(2)	A50IH3220(1)60(2)
250	160	0.33	6.0	20.5	7.0	3500	50IK3330(1)60(2)	A50IK3330(1)60(2)
250	160	0.47	7.0	20.5	7.0	3500	50IK3470(1)60(2)	A50IK3470(1)60(2)
250	160	0.68	8.5	20.5	7.0	3500	50IK3680(1)60(2)	A50IK3680(1)60(2)
250	160	1.0	8.5	28.0	4.0	2000	50IQ4100(1)60(2)	A50IQ4100(1)60(2)
250	160	1.5	10.0	28.0	4.0	2000	50IQ4150(1)60(2)	A50IQ4150(1)60(2)
250	160	2.2	11.0	33.0	2.5	1300	50IT4220(1)60(2)	A50IT4220(1)60(2)
250	160	3.3	13.0	33.0	2.5	1300	50IT4330(1)60(2)	A50IT4330(1)60(2)
250	160	4.7	15.5	33.0	2.5	1300	50IT4470(1)60(2)	A50IT4470(1)60(2)
250	160	6.8	18.5	33.0	2.5	1300	50IT4680(1)60(2)	A50IT4680(1)60(2)
250	160	10.0	22.0	33.0	2.5	1300	50IT5100(1)60(2)	A50IT5100(1)60(2)
400	200	0.010	5.0	11.0	13.5	11000	50MF2100(1)60(2)	A50MF2100(1)60(2)
400	200	0.015	5.0	11.0	13.5	11000	50MF2150(1)60(2)	A50MF2150(1)60(2)
400	200	0.022	5.0	11.0	13.5	11000	50MF2220(1)60(2)	A50MF2220(1)60(2)
400	200	0.033	5.0	11.0	13.5	11000	50MF2330(1)60(2)	A50MF2330(1)60(2)
400	200	0.047	6.0	14.0	13.5	11000	50MH2470(1)60(2)	A50MH2470(1)60(2)
400	200	0.068	6.0	14.0	13.5	11000	50MH2680(1)60(2)	A50MH2680(1)60(2)
400	200	0.10	6.5	14.0	13.5	11000	50MH3100(1)60(2)	A50MH3100(1)60(2)
400	200	0.15	6.0	20.5	10.0	8000	50MK3150(1)60(2)	A50MK3150(1)60(2)
400	200	0.22	7.5	20.5	10.0	8000	50MK3220(1)60(2)	A50MK3220(1)60(2)
400	200	0.33	8.5	20.5	10.0	8000	50MK3330(1)60(2)	A50MK3330(1)60(2)
400	200	0.47	8.5	28.0	6.5	5200	50MQ3470(1)60(2)	A50MQ3470(1)60(2)
400	200	0.68	10.0	28.0	6.5	5200	50MQ3680(1)60(2)	A50MQ3680(1)60(2)
400	200	1.0	10.5	33.0	4.0	3200	50MT4100(1)60(2)	A50MT4100(1)60(2)
VDC	**VAC**	**Capacitance Value (µF)**	**D (mm)**	**L (mm)**	**dV/dt (V/µs)**	**Max K_0 (V^2/µs)**	**New KEMET Part Number**	**Legacy Part Number**

(1) Insert lead and packaging code. See Ordering Options Table for available options.
(2) J = 5%, K = 10%, M = 20%.

Roll Over for Order Info.

Table 1 – Ratings & Part Number Reference cont'd

VDC	VAC	Capacitance Value (µF)	Dimensions in mm		dV/dt (V/µs)	Max K_0 (V^2/µs)	New KEMET Part Number	Legacy Part Number
			D	L				
400	200	1.5	12.5	33.0	4.0	3200	50MT4150(1)60(2)	A50MT4150(1)60(2)
400	200	2.2	15.0	33.0	4.0	3200	50MT4220(1)60(2)	A50MT4220(1)60(2)
400	200	3.3	18.5	33.0	4.0	3200	50MT4330(1)60(2)	A50MT4330(1)60(2)
630	220	0.001	5.0	11.0	20	250000	50PF1100(1)60(2)	A50PF1100(1)60(2)
630	220	0.0015	5.0	11.0	20	250000	50PF1150(1)60(2)	A50PF1150(1)60(2)
630	220	0.0022	5.0	11.0	20	250000	50PF1220(1)60(2)	A50PF1220(1)60(2)
630	220	0.0033	5.0	11.0	20	250000	50PF1330(1)60(2)	A50PF1330(1)60(2)
630	220	0.0047	5.0	11.0	20	250000	50PF1470(1)60(2)	A50PF1470(1)60(2)
630	220	0.0068	5.0	11.0	20	250000	50PF1680(1)60(2)	A50PF1680(1)60(2)
630	220	0.010	5.0	14.0	20	250000	50PH2100(1)60(2)	A50PH2100(1)60(2)
630	220	0.015	5.0	14.0	20	250000	50PH2150(1)60(2)	A50PH2150(1)60(2)
630	220	0.022	6.0	14.0	20	250000	50PH2220(1)60(2)	A50PH2220(1)60(2)
630	220	0.033	6.0	20.5	15	190000	50PK2330(1)60(2)	A50PK2330(1)60(2)
630	220	0.047	6.0	20.5	15	190000	50PK2470(1)60(2)	A50PK2470(1)60(2)
630	220	0.068	7.0	20.5	15	190000	50PK2680(1)60(2)	A50PK2680(1)60(2)
630	220	0.10	7.0	28.0	10	130000	50PQ3100(1)60(2)	A50PQ3100(1)60(2)
630	220	0.15	8.5	28.0	10	130000	50PQ3150(1)60(2)	A50PQ3150(1)60(2)
630	220	0.22	10.0	28.0	10	130000	50PQ3220(1)60(2)	A50PQ3220(1)60(2)
630	220	0.33	10.5	33.0	6	7500	50PT3330(1)60(2)	A50PT3330(1)60(2)
630	220	0.47	12.0	33.0	6	7500	50PT3470(1)60(2)	A50PT3470(1)60(2)
630	220	0.68	14.5	33.0	6	7500	50PT3680(1)60(2)	A50PT3680(1)60(2)
630	220	1.0	17.5	33.0	6	7500	50PT4100(1)60(2)	A50PT4100(1)60(2)
1000	250	0.001	6.5	14.0	50	100000	50QH1100(1)00(2)	A50QH1100(1)00(2)
1000	250	0.0015	6.5	14.0	50	100000	50QH1150(1)00(2)	A50QH1150(1)00(2)
1000	250	0.0022	6.5	14.0	50	100000	50QH1220(1)00(2)	A50QH1220(1)00(2)
1000	250	0.0033	6.5	14.0	50	100000	50QH1330(1)00(2)	A50QH1330(1)00(2)
1000	250	0.0047	7.5	14.0	50	100000	50QH1470(1)00(2)	A50QH1470(1)00(2)
1000	250	0.0068	8.0	14.0	50	100000	50QH1680(1)00(2)	A50QH1680(1)00(2)
1000	250	0.010	7.0	20.5	30	60000	50QK2100(1)00(2)	A50QK2100(1)00(2)
1000	250	0.015	7.5	20.5	30	60000	50QK2150(1)00(2)	A50QK2150(1)00(2)
1000	250	0.022	9.0	20.5	30	60000	50QK2220(1)00(2)	A50QK2220(1)00(2)
1000	250	0.033	8.0	28.0	15	30000	50QQ2330(1)00(2)	A50QQ2330(1)00(2)
1000	250	0.047	9.0	28.0	15	30000	50QQ2470(1)00(2)	A50QQ2470(1)00(2)
1000	250	0.068	10.5	28.0	15	30000	50QQ2680(1)00(2)	A50QQ2680(1)00(2)
1000	250	0.10	12.5	28.0	15	30000	50QQ3100(1)00(2)	A50QQ3100(1)00(2)
1000	250	0.15	13.5	33.0	10	20000	50QT3150(1)00(2)	A50QT3150(1)00(2)
1000	250	0.22	16.0	33.0	10	20000	50QT3220(1)00(2)	A50QT3220(1)00(2)
1000	250	0.33	19.0	33.0	10	20000	50QT3330(1)00(2)	A50QT3330(1)00(2)
1000	250	0.47	22.0	33.0	10	20000	50QT3470(1)00(2)	A50QT3470(1)00(2)
VDC	**VAC**	**Capacitance Value (µF)**	**D (mm)**	**L (mm)**	**dV/dt (V/µs)**	**Max K_0 (V^2/µs)**	**New KEMET Part Number**	**Legacy Part Number**

(1) Insert lead and packaging code. See Ordering Options Table for available options.
(2) J = 5%, K = 10%, M = 20%.

Roll Over for Order Info.

Soldering Process

The implementation of the RoHS Directive has required the selection SnAuCu (SAC) alloys or SnCu alloys as primary solder. This has increased the liquidus temperature from that of 183ºC for SnPb eutectic alloy to 217ºC – 221ºC for the new alloys. As a result, the heat stress to components, even in wave soldering, has increased considerably due to higher pre-heat and wave temperatures. Polypropylene capacitors are especially sensitive to heat (melting point of polypropylene is 160ºC – 170ºC). Wave soldering can be destructive especially for mechanically small polypropylene capacitors and great care must be taken during soldering. The solder profiles from KEMET are highly recommended. You may also refer to the wave soldering curve from IEC Publication 61760–1 Edition 2. Please consult KEMET with any questions.

Marking

- KEMET's logo
- Series
- Dielectric code MKT
- Capacitance
- Capacitance tolerance
- Rated DC voltage

Packaging Quantities

Diameter	Length	Bulk Long Leads	Standard Reel ø 355 mm
5	11	1500	3000
6.5	11	1200	1300
5	14	1500	3000
5.5	14	1500	1500
6	14	1200	1300
6.5	14	1200	1300
7	14	1500	1000
7.5	14	1500	1000
8	14	1250	900
6	20.5	1500	1300
6.5	20.5	1250	1200
7	20.5	1250	1100
7.5	20.5	1000	1000
8	20.5	1000	900
8.5	20.5	750	800
9	20.5	750	800
9.5	20.5	750	600
10	20.5	750	600
12	20.5	500	400
7	28	750	1000
8	28	500	900
8.5	28	500	800

Diameter	Length	Bulk Long Leads	Standard Reel ø 355 mm
9	28	500	800
9.5	28	500	600
10	28	500	600
10.5	28	500	400
11	28	500	400
12.5	28	300	400
10	33	400	400
10.5	33	400	400
11	33	400	400
11.5	33	400	400
12	33	300	400
12.5	33	300	400
13	33	300	400
13.5	33	300	300
14.5	33	300	300
15	33	300	300
15.5	33	200	250
16	33	200	250
17.5	33	200	200
18.5	33	150	150
19	33	150	150
22	33	100	

Lead Taping & Packaging (IEC 60286–1)

Taping Specification

Description	Symbol	Dimensions (mm)
Component diameter	D	4.5 – 19.5
Body length	L	11 – 33
Component lead spacing	A(1)	See Table 1
Reel core diameter	E	85
Arbor hole diameter	M	30
Reel diameter	ø	355 maximum
Tape width	H	6 ± 0.5/9 ± 1(2)
Body location (lateral deviation)	G	≤ 0.7
Body location (longitudinal deviation)	N	≤ 1.2
Tape spacing	B	See Table 2
Lead length from the component body to the adhesive tape	I	≥ 20
Distance between reel flanges	C	See Table 2

(1) Maximum cumulative feed hole error; 1.5 mm per 6 parts.
(2) 9 ±1 for capacitor with L ≥ 31.5.

Table 1

Dimensions in mm	
Diameter	$A^{\pm 0.5}$
≤ 5	5
5.1 – 9.5	10
9.6 – 14.7	15
14.8 – 19.5	15

Table 2

Dimensions in mm			
Length	Class	$B^{\pm 1.5}$	C
≤ 11	I	52.4	75
14 – 20.5	II	63.6	86
≥ 26	III	73	98

KEMET Corporation World Headquarters

2835 KEMET Way
Simpsonville, SC 29681

Mailing Address:
P.O. Box 5928
Greenville, SC 29606

www.kemet.com
Tel: 864-963-6300
Fax: 864-963-6521

Corporate Offices
Fort Lauderdale, FL
Tel: 954-766-2800

North America

Southeast
Lake Mary, FL
Tel: 407-855-8886

Northeast
Wilmington, MA
Tel: 978-658-1663

Central
Novi, MI
Tel: 248-994-1030

West
Milpitas, CA
Tel: 408-433-9950

Mexico
Guadalajara, Jalisco
Tel: 52-33-3123-2141

Europe

Southern Europe
Paris, France
Tel: 33-1-4646-1006

Sasso Marconi, Italy
Tel: 39-051-939111

Central Europe
Landsberg, Germany
Tel: 49-8191-3350800

Kamen, Germany
Tel: 49-2307-438110

Northern Europe
Bishop's Stortford, United Kingdom
Tel: 44-1279-460122

Espoo, Finland
Tel: 358-9-5406-5000

Asia

Northeast Asia
Hong Kong
Tel: 852-2305-1168

Shenzhen, China
Tel: 86-755-2518-1306

Beijing, China
Tel: 86-10-5829-1711

Shanghai, China
Tel: 86-21-6447-0707

Taipei, Taiwan
Tel: 886-2-27528585

Southeast Asia
Singapore
Tel: 65-6586-1900

Penang, Malaysia
Tel: 60-4-6430200

Bangalore, India
Tel: 91-806-53-76817

Note: KEMET reserves the right to modify minor details of internal and external construction at any time in the interest of product improvement. KEMET does not assume any responsibility for infringement that might result from the use of KEMET Capacitors in potential circuit designs. KEMET is a registered trademark of KEMET Electronics Corporation.

Other KEMET Resources

Tools	
Resource	Location
Configure A Part: CapEdge	http://capacitoredge.kemet.com
SPICE & FIT Software	http://www.kemet.com/spice
Search Our FAQs: KnowledgeEdge	http://www.kemet.com/keask
Electrolytic LifeCalculator	http://www.kemet.com:8080/elc

Product Information	
Resource	Location
Products	http://www.kemet.com/products
Technical Resources (Including Soldering Techniques)	http://www.kemet.com/technicalpapers
RoHS Statement	http://www.kemet.com/rohs
Quality Documents	http://www.kemet.com/qualitydocuments

Product Request	
Resource	Location
Sample Request	http://www.kemet.com/sample
Engineering Kit Request	http://www.kemet.com/kits

Contact	
Resource	Location
Website	www.kemet.com
Contact Us	http://www.kemet.com/contact
Investor Relations	http://www.kemet.com/ir
Call Us	1-877-MyKEMET
Twitter	http://twitter.com/kemetcapacitors

Disclaimer

All product specifications, statements, information and data (collectively, the "Information") in this datasheet are subject to change. The customer is responsible for checking and verifying the extent to which the Information contained in this publication is applicable to an order at the time the order is placed.

All Information given herein is believed to be accurate and reliable, but it is presented without guarantee, warranty, or responsibility of any kind, expressed or implied.

Statements of suitability for certain applications are based on KEMET Electronics Corporation's ("KEMET") knowledge of typical operating conditions for such applications, but are not intended to constitute – and KEMET specifically disclaims – any warranty concerning suitability for a specific customer application or use. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by KEMET with reference to the use of KEMET's products is given gratis, and KEMET assumes no obligation or liability for the advice given or results obtained.

Although KEMET designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product–related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicted or that other measures may not be required.

Digitally signed by Jeannette Calvo
DN: c=US, st=FL, l=Fort Lauderdale, o=KEMET Corp., ou=Marketing Communications, cn=Jeannette Calvo, email=jeannettecalvo@kemet.com
Date: 2013.04.04 15:12:40 -04'00'