Solid Tantalum Surface Mount Chip Capacitors, Molded Case, Extended Range

FEATURES

- Small size, suitable for high density packaging
- Terminations: 100 % matte tin
- MSL level: 1
- Compatible with “high volume” automatic pick and place equipment
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE Available

GREEN (5-2008) Available

PERFORMANCE / ELECTRICAL CHARACTERISTICS

Operating Temperature: -55 °C to +125 °C (above 85 °C, voltage derating is required)

Capacitance Range: 0.47 µF to 470 µF

Capacitance Tolerance: ± 10 %, ± 20 %

Voltage Rating: 2.5 V_{DC} to 35 V_{DC}

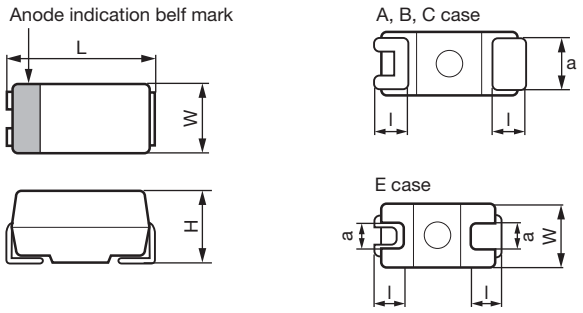
APPLICATIONS

- Industrial
- AV equipment
- General purpose

ORDERING INFORMATION

TMCM	A	0J	106	M	TR	(2)	F
TYPE	CASE CODE	DC VOLTAGE RATING AT +85 °C	CAPACITANCE (µF)	CAPACITANCE TOLERANCE	PACKAGING POLARITY	(OPTIONAL)	TERMINAL CODE
	See Ratings and Case Codes table	0E = 2.5 V 0G = 4.0 V 0J = 6.3 V (7 V) 1A = 10 V 1C = 16 V 1D = 20 V 1E = 25 V 1V = 35 V	This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow.	K = ± 10 % M = ± 20 %	TR = 7" reel, cathodes close to perforation side	Halogen-free (special order), not applicable for E case	F = lead (Pb)-free terminations

DIMENSIONS in inches [millimeters]



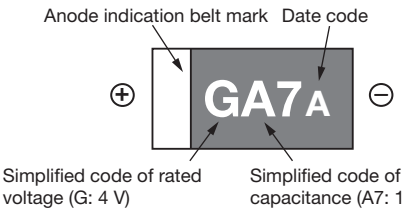
CASE CODE	EIA SIZE	L	W	H	l	a
A	3216-18	0.126 ± 0.008 [3.2 ± 0.2]	0.063 ± 0.008 [1.6 ± 0.2]	0.063 ± 0.008 [1.6 ± 0.2]	0.028 ± 0.012 [0.7 ± 0.3]	0.047 ± 0.008 [1.2 ± 0.2]
B	3528-21	0.138 ± 0.008 [3.5 ± 0.2]	0.110 ± 0.008 [2.8 ± 0.2]	0.075 ± 0.008 [1.9 ± 0.2]	0.030 ± 0.012 [0.8 ± 0.3]	0.087 ± 0.008 [2.2 ± 0.2]
C	5832-27	0.228 ± 0.008 [5.8 ± 0.2]	0.126 ± 0.008 [3.2 ± 0.2]	0.100 ± 0.008 [2.5 ± 0.2]	0.051 ± 0.012 [1.3 ± 0.3]	0.087 ± 0.008 [2.2 ± 0.2]
E	7343-30	0.287 ± 0.008 [7.3 ± 0.2]	0.169 ± 0.012 [4.3 ± 0.3]	0.112 ± 0.008 [2.8 ± 0.2]	0.051 ± 0.012 [1.3 ± 0.3]	0.094 ± 0.008 [2.4 ± 0.2]

RATINGS AND CASE CODES

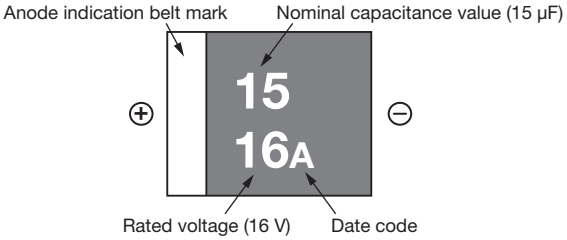
µF	2.5 V	4.0 V	6.3 V (7 V)	10 V	16 V	20 V	25 V	35 V
0.47								A
0.68							A	A
1.0						A	A	A
1.5					A	A	A	A / B
2.2				A	A	A	A / B	A / B
3.3			A	A	A	A / B	A / B	B
4.7		A	A	A	A / B	A / B	A / B	C
6.8	A	A	A	A / B	A / B	A / B	B / C	C
10	A	A	A / B	A / B	A / B	B / C	C	C / E
15	A	A / B	A / B	A / B	A / B / C	B / C	C / E	E
22	A / B	A / B	A / B	A / B / C	A / B / C	B / C / E	C / E	E
33	A / B	A / B	A / B / C	A / B / C	B / C / E	C / E	E	
47	A / B	A / B / C	A / B / C	A / B / C / E	B / C / E	E	E	
68	A / B / C	A / B / C	A / B / C / E	B / C / E	C / E	E		
100	A / B / C	A / B / C / E	A / B / C / E	B / C / E	C / E			
150	A / B / C / E	A / B / C / E	B / C / E	C / E				
220	A / B / C / E	A / B / C / E	B / C / E	E				
330	B / C / E	B / C / E	C / E	E				
470	B / C / E	E	E					

MARKING

A, B Case



C, E Case



SIMPLIFIED VOLTAGE CODES, CASES A, B

VOLTAGE CODE V	CODE	VOLTAGE CODE V	CODE
2.5	e	16	C
4.0	G	20	D
6.3 (7)	J	25	E
10	A	35	V

SIMPLIFIED CAP CODES, CASES A, B

CAPACITANCE CODE µF	CODE	CAPACITANCE CODE µF	CODE
0.47	S5	22	J7
0.68	W5	33	N7
1.0	A6	47	S7
1.5	E6	68	W7
2.2	J6	100	A8
3.3	N6	150	E8
4.7	S6	220	J8
6.8	W6	330	N8
10	A7	470	S8
15	E7		

DATE CODE

YEAR	MONTH											
	1	2	3	4	5	6	7	8	9	10	11	12
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z

STANDARD RATINGS

CAPACITANCE (µF)	CASE CODE	PART NUMBER	MAX. DCL AT +25 °C (µA)	MAX. DF AT +25 °C, 120 Hz (%)	MAX. ESR AT +25 °C, 100 kHz (Ω)	MAX. RIPPLE, 100 kHz I_{RMS} (A)
2.5 V_{DC} AT +85 °C, 1.6 V_{DC} AT +125 °C						
6.8	A	TMCMA0E685(1)TRF	0.5	6	4.0	0.140
10	A	TMCMA0E106(1)TRF	0.5	8	2.0	0.197
15	A	TMCMA0E156(1)TRF	0.5	8	2.9	0.164
22	A	TMCMA0E226(1)TRF	0.6	8	2.0	0.197
22	B	TMCMB0E226(1)TRF	0.6	8	1.1	0.295
33	A	TMCMA0E336(1)TRF	0.8	8	2.0	0.197
33	B	TMCMB0E336(1)TRF	0.8	8	1.1	0.295
47	A	TMCMA0E476(1)TRF	1.2	12	2.0	0.197
47	B	TMCMB0E476(1)TRF	1.2	8	1.1	0.295
68	A	TMCMA0E686(1)TRF	1.7	18	2.0	0.197
68	B	TMCMB0E686(1)TRF	1.7	8	1.1	0.295
68	C	TMCMC0E686(1)TRF	1.7	8	1.1	0.302
100	A	TMCMA0E107(1)TRF	5.0	18	1.1	0.266
100	B	TMCMB0E107(1)TRF	2.5	12	1.1	0.295
100	C	TMCMC0E107(1)TRF	2.5	8	1.1	0.302
150	A	TMCMA0E157(1)TRF	7.5	30	1.8	0.208
150	B	TMCMB0E157(1)TRF	3.8	18	1.1	0.295
150	C	TMCMC0E157(1)TRF	3.8	8	1.1	0.302
150	E	TMCME0E157(1)TRF	3.8	8	0.3	0.632
220	A	TMCMA0E227(1)TRF	27.5	30	1.8	0.208
220	B	TMCMB0E227(1)TRF	5.5	18	1.1	0.295
220	C	TMCMC0E227(1)TRF	5.5	8	1.1	0.302
220	E	TMCME0E227(1)TRF	5.5	8	0.3	0.632
330	B	TMCMB0E337(1)TRF	16.5	30	1.1	0.295
330	C	TMCMC0E337(1)TRF	8.3	18	1.1	0.302
330	E	TMCME0E337(1)TRF	8.3	10	0.3	0.632
470	B	TMCMB0E477MTRF	58.8	30	1.1	0.295
470	C	TMCMC0E477(1)TRF	11.8	18	1.1	0.302
470	E	TMCME0E477(1)TRF	11.8	10	0.2	0.775
4 V_{DC} AT + 85 °C, 2.5 V_{DC} AT +125 °C						
4.7	A	TMCMA0G475(1)TRF	0.5	6	4.0	0.140
6.8	A	TMCMA0G685(1)TRF	0.5	6	4.0	0.140
10	A	TMCMA0G106(1)TRF	0.5	8	2.0	0.197
15	A	TMCMA0G156(1)TRF	0.6	8	2.9	0.164
15	B	TMCMB0G156(1)TRF	0.6	8	1.7	0.238
22	A	TMCMA0G226(1)TRF	0.9	8	1.8	0.208
22	B	TMCMB0G226(1)TRF	0.9	8	1.1	0.295
33	A	TMCMA0G336(1)TRF	1.3	8	2.0	0.197
33	B	TMCMB0G336(1)TRF	1.3	8	1.1	0.295
47	A	TMCMA0G476(1)TRF	1.9	12	2.0	0.197
47	B	TMCMB0G476(1)TRF	1.9	8	1.1	0.295
47	C	TMCMC0G476(1)TRF	1.9	8	1.1	0.302
68	A	TMCMA0G686(1)TRF	5.4	12	2.0	0.197
68	B	TMCMB0G686(1)TRF	2.7	8	1.1	0.295
68	C	TMCMC0G686(1)TRF	2.7	8	1.1	0.302
100	A	TMCMA0G107(1)TRF	8.0	30	1.1	0.266
100	B	TMCMB0G107(1)TRF	4.0	12	1.1	0.295
100	C	TMCMC0G107(1)TRF	4.0	8	1.1	0.302
100	E	TMCME0G107(1)TRF	4.0	8	0.6	0.447
150	A	TMCMA0G157(1)TRF	60.0	30	1.8	0.208
150	B	TMCMB0G157(1)TRF	6.0	18	1.1	0.295
150	C	TMCMC0G157(1)TRF	6.0	8	1.1	0.302
150	E	TMCME0G157(1)TRF	6.0	8	0.3	0.632

Note

- Part number definition:
  (1) Tolerance: For 10 % tolerance, specify “K”; for 20 % tolerance, change to “M”

STANDARD RATINGS

CAPACITANCE (µF)	CASE CODE	PART NUMBER	MAX. DCL AT +25 °C (µA)	MAX. DF AT +25 °C, 120 Hz (%)	MAX. ESR AT +25 °C, 100 kHz (Ω)	MAX. RIPPLE, 100 kHz I_{RMS} (A)
4 V_{DC} AT + 85 °C, 2.5 V_{DC} AT +125 °C						
220	A	TMCMA0G227MTRF	88.0	30	1.8	0.208
220	B	TMCMB0G227(1)TRF	17.6	18	1.1	0.295
220	C	TMCMC0G227(1)TRF	8.8	12	1.1	0.302
220	E	TMCME0G227(1)TRF	8.8	8	0.3	0.632
330	B	TMCMB0G337MTRF	26.4	30	1.1	0.295
330	C	TMCMC0G337(1)TRF	13.2	18	1.1	0.302
330	E	TMCME0G337(1)TRF	13.2	10	0.3	0.632
470	E	TMCME0G477(1)TRF	18.8	16	0.2	0.775
6.3 V_{DC} (7 V_{DC}) AT + 85 °C, 4 V_{DC} AT +125 °C						
3.3	A	TMCMA0J335(1)TRF	0.5	6	4.0	0.140
4.7	A	TMCMA0J475(1)TRF	0.5	6	4.0	0.140
6.8	A	TMCMA0J685(1)TRF	0.5	6	4.0	0.140
10	A	TMCMA0J106(1)TRF	0.7	8	2.9	0.164
10	B	TMCMB0J106(1)TRF	0.7	8	1.7	0.238
15	A	TMCMA0J156(1)TRF	1.1	8	4.0	0.140
15	B	TMCMB0J156(1)TRF	1.1	8	1.7	0.238
22	A	TMCMA0J226(1)TRF	1.5	8	1.8	0.208
22	B	TMCMB0J226(1)TRF	1.5	8	1.1	0.295
33	A	TMCMA0J336(1)TRF	2.3	10	2.0	0.197
33	B	TMCMB0J336(1)TRF	2.3	8	1.1	0.295
33	C	TMCMC0J336(1)TRF	2.3	8	1.1	0.302
47	A	TMCMA0J476(1)TRF	5.9	12	1.8	0.208
47	B	TMCMB0J476(1)TRF	3.3	8	1.1	0.295
47	C	TMCMC0J476(1)TRF	3.3	8	1.1	0.302
68	A	TMCMA0J686(1)TRF	8.6	20	2.0	0.197
68	B	TMCMB0J686(1)TRF	4.8	10	1.1	0.295
68	C	TMCMC0J686(1)TRF	4.8	8	1.1	0.302
68	E	TMCME0J686(1)TRF	4.8	8	0.6	0.447
100	A	TMCMA0J107MTRF	31.5	30	1.8	0.208
100	B	TMCMB0J107(1)TRF	7.0	12	1.1	0.295
100	C	TMCMC0J107(1)TRF	7.0	8	1.1	0.302
100	E	TMCME0J107(1)TRF	7.0	8	0.6	0.447
150	B	TMCMB0J157(1)TRF	18.9	20	1.1	0.295
150	C	TMCMC0J157(1)TRF	10.5	10	1.1	0.302
150	E	TMCME0J157(1)TRF	10.5	8	0.3	0.632
220	B	TMCMB0J227MTRF	27.7	30	1.1	0.295
220	C	TMCMC0J227(1)TRF	15.4	18	1.1	0.302
220	E	TMCME0J227(1)TRF	15.4	10	0.3	0.632
330	C	TMCMC0J337MTRF	23.1	30	1.1	0.302
330	E	TMCME0J337(1)TRF	23.1	16	0.2	0.775
470	E	TMCME0J477(1)TRF	32.9	20	0.3	0.632
10 V_{DC} AT + 85 °C, 6.3 V_{DC} AT +125 °C						
2.2	A	TMCMA1A225(1)TRF	0.5	6	4.4	0.133
3.3	A	TMCMA1A335(1)TRF	0.5	6	4.0	0.140
4.7	A	TMCMA1A475(1)TRF	0.5	6	4.0	0.140
6.8	A	TMCMA1A685(1)TRF	0.7	6	4.0	0.140
6.8	B	TMCMB1A685(1)TRF	0.7	6	2.8	0.185
6.8	A	TMCMA1A106(1)TRF	1.0	8	2.9	0.164
6.8	B	TMCMB1A106(1)TRF	1.0	8	1.7	0.238
15	A	TMCMA1A156(1)TRF	1.5	8	2.9	0.164
15	B	TMCMB1A156(1)TRF	1.5	8	1.7	0.238
22	A	TMCMA1A226(1)TRF	4.4	12	2.4	0.180
22	B	TMCMB1A226(1)TRF	2.2	8	1.1	0.295
22	C	TMCMC1A226(1)TRF	2.2	8	1.7	0.243

Note

- Part number definition:
  (1) Tolerance: For 10 % tolerance, specify “K”; for 20 % tolerance, change to “M”

STANDARD RATINGS

CAPACITANCE (µF)	CASE CODE	PART NUMBER	MAX. DCL AT +25 °C (µA)	MAX. DF AT +25 °C, 120 Hz (%)	MAX. ESR AT +25 °C, 100 kHz (Ω)	MAX. RIPPLE, 100 kHz I_{RMS} (A)
10 V_{DC} AT + 85 °C, 6.3 V_{DC} AT +125 °C						
33	A	TMCMA1A336(1)TRF	6.6	18	2.0	0.197
33	B	TMCMB1A336(1)TRF	3.3	8	1.1	0.295
33	C	TMCMC1A336(1)TRF	3.3	8	1.1	0.302
47	A	TMCMA1A476MTRF	9.4	20	2.6	0.173
47	B	TMCMB1A476(1)TRF	4.7	10	1.1	0.295
47	C	TMCMC1A476(1)TRF	4.7	8	1.1	0.302
47	E	TMCME1A476(1)TRF	4.7	8	0.9	0.365
68	B	TMCMB1A686(1)TRF	6.8	18	1.1	0.295
68	C	TMCMC1A686(1)TRF	6.8	8	1.1	0.302
68	E	TMCME1A686(1)TRF	6.8	8	0.6	0.447
100	B	TMCMB1A107MTRF	20.0	30	1.7	0.238
100	C	TMCMC1A107(1)TRF	10.0	10	1.1	0.302
100	E	TMCME1A107(1)TRF	10.0	8	0.6	0.447
150	C	TMCMC1A157MTRF	15.0	18	1.1	0.302
150	E	TMCME1A157(1)TRF	15.0	8	0.3	0.632
220	E	TMCME1A227(1)TRF	22.0	12	0.2	0.775
330	E	TMCME1A337(1)TRF	33.0	30	0.3	0.632
16 V_{DC} AT + 85 °C, 10 V_{DC} AT +125 °C						
1.5	A	TMCMA1C155(1)TRF	0.5	6	6.6	0.109
2.2	A	TMCMA1C225(1)TRF	0.5	6	6.6	0.109
3.3	A	TMCMA1C335(1)TRF	0.5	6	4.0	0.140
4.7	A	TMCMA1C475(1)TRF	0.8	6	4.0	0.140
4.7	B	TMCMB1C475(1)TRF	0.8	6	2.8	0.185
6.8	A	TMCMA1C685(1)TRF	1.1	6	4.0	0.140
6.8	B	TMCMB1C685(1)TRF	1.1	6	2.8	0.185
10	A	TMCMA1C106(1)TRF	1.6	8	2.9	0.164
10	B	TMCMB1C106(1)TRF	1.6	8	1.7	0.238
15	A	TMCMA1C156(1)TRF	2.4	12	2.9	0.164
15	B	TMCMB1C156(1)TRF	2.4	8	1.7	0.238
15	C	TMCMC1C156(1)TRF	2.4	8	1.7	0.243
22	A	TMCMA1C226MTRF	7.0	16	2.9	0.164
22	B	TMCMB1C226(1)TRF	3.5	8	1.7	0.238
22	C	TMCMC1C226(1)TRF	3.5	8	1.1	0.302
33	B	TMCMB1C336(1)TRF	5.3	12	1.1	0.295
33	C	TMCMC1C336(1)TRF	5.3	8	1.1	0.302
33	E	TMCME1C336(1)TRF	5.3	8	0.9	0.365
47	B	TMCMB1C476MTRF	7.5	20	1.7	0.238
47	C	TMCMC1C476(1)TRF	7.5	8	2.2	0.213
47	E	TMCME1C476(1)TRF	7.5	8	0.9	0.365
68	C	TMCMC1C686(1)TRF	10.9	20	1.1	0.302
68	E	TMCME1C686(1)TRF	10.9	8	0.6	0.447
100	C	TMCMC1C107MTRF	16.0	20	1.7	0.243
100	E	TMCME1C107(1)TRF	16.0	8	0.6	0.447
20 V_{DC} AT + 85 °C, 13 V_{DC} AT +125 °C						
1.0	A	TMCMA1D105(1)TRF	0.5	4	6.6	0.109
1.5	A	TMCMA1D155(1)TRF	0.5	6	4.4	0.133
2.2	A	TMCMA1D225(1)TRF	0.5	6	4.4	0.133
3.3	A	TMCMA1D335(1)TRF	0.7	6	4.0	0.140
3.3	B	TMCMB1D335(1)TRF	0.7	6	3.9	0.157
4.7	A	TMCMA1D475(1)TRF	0.9	6	4.0	0.140
4.7	B	TMCMB1D475(1)TRF	0.9	6	2.8	0.185
6.8	A	TMCMA1D685MTRF	1.4	6	4.0	0.140
6.8	B	TMCMB1D685(1)TRF	1.4	6	2.2	0.209
10	B	TMCMB1D106(1)TRF	2.0	8	2.2	0.209
10	C	TMCMC1D106(1)TRF	2.0	8	1.7	0.243

Note

- Part number definition:
  (1) Tolerance: For 10 % tolerance, specify “K”; for 20 % tolerance, change to “M”

STANDARD RATINGS

CAPACITANCE (µF)	CASE CODE	PART NUMBER	MAX. DCL AT +25 °C (µA)	MAX. DF AT +25 °C, 120 Hz (%)	MAX. ESR AT +25 °C, 100 kHz (Ω)	MAX. RIPPLE, 100 kHz I_{RMS} (A)
20 V_{DC} AT + 85 °C, 13 V_{DC} AT +125 °C						
15	B	TMCMB1D156(1)TRF	3.0	8	1.1	0.295
15	C	TMCMC1D156(1)TRF	3.0	8	1.7	0.243
22	B	TMCMB1D226(1)TRF	4.4	8	1.7	0.238
22	C	TMCMC1D226(1)TRF	4.4	8	1.7	0.243
22	E	TMCME1D226(1)TRF	4.4	8	0.9	0.365
33	C	TMCMC1D336(1)TRF	6.6	8	1.0	0.316
33	E	TMCME1D336(1)TRF	6.6	8	0.9	0.365
47	E	TMCME1D476(1)TRF	9.4	8	0.9	0.365
68	E	TMCME1D686(1)TRF	13.6	8	0.5	0.490
25 V_{DC} AT + 85 °C, 16 V_{DC} AT +125 °C						
0.68	A	TMCMA1E684(1)TRF	0.5	4	9.7	0.090
1.0	A	TMCMA1E105(1)TRF	0.5	4	6.6	0.109
1.5	A	TMCMA1E155(1)TRF	0.5	6	4.4	0.133
2.2	A	TMCMA1E225(1)TRF	0.6	6	4.4	0.133
2.2	B	TMCMB1E225(1)TRF	0.6	6	3.9	0.157
3.3	A	TMCMA1E335(1)TRF	0.8	6	2.8	0.167
3.3	B	TMCMB1E335(1)TRF	0.8	6	3.9	0.157
4.7	A	TMCMA1E475MTRF	1.2	6	6.6	0.109
4.7	B	TMCMB1E475(1)TRF	1.2	6	2.8	0.185
6.8	B	TMCMB1E685(1)TRF	1.7	8	2.8	0.185
6.8	C	TMCMC1E685(1)TRF	1.7	8	1.7	0.243
10	C	TMCMC1E106(1)TRF	2.5	8	1.7	0.243
15	C	TMCMC1E156(1)TRF	3.8	8	1.7	0.243
15	E	TMCME1E156(1)TRF	3.8	8	0.9	0.365
22	C	TMCMC1E226(1)TRF	5.5	8	1.1	0.302
22	E	TMCME1E226(1)TRF	5.5	8	0.9	0.365
33	E	TMCME1E336(1)TRF	8.3	8	0.9	0.365
47	E	TMCME1E476(1)TRF	11.8	8	0.9	0.365
35 V_{DC} AT + 85 °C, 22 V_{DC} AT +125 °C						
0.47	A	TMCMA1V474(1)TRF	0.5	4	16.5	0.069
0.68	A	TMCMA1V684(1)TRF	0.5	4	9.7	0.090
1.0	A	TMCMA1V105(1)TRF	0.5	4	6.6	0.109
1.5	A	TMCMA1V155(1)TRF	0.5	6	4.4	0.133
1.5	B	TMCMB1V155(1)TRF	0.5	6	3.9	0.157
2.2	A	TMCMA1V225MTRF	0.8	8	4.4	0.133
2.2	B	TMCMB1V225(1)TRF	0.8	6	5.5	0.132
3.3	B	TMCMB1V335(1)TRF	1.2	6	3.9	0.157
4.7	C	TMCMC1V475(1)TRF	1.6	6	2.8	0.189
6.8	C	TMCMC1V685(1)TRF	2.4	6	1.7	0.243
10	C	TMCMC1V106(1)TRF	3.5	8	1.7	0.243
10	E	TMCME1V106(1)TRF	3.5	8	1.1	0.330
15	E	TMCME1V156(1)TRF	5.3	8	0.9	0.365
22	E	TMCME1V226(1)TRF	7.7	8	0.9	0.365

Note

- Part number definition:
  (1) Tolerance: For 10 % tolerance, specify “K”; for 20 % tolerance, change to “M”

RECOMMENDED VOLTAGE DERATING GUIDELINES (for temperature below +85 °C)

CAPACITOR VOLTAGE RATING	OPERATING VOLTAGE
2.5	1.2
4.0	2.0
6.3 (7.0)	3.1 (3.5)
10	5.0
16	8.0
20	10.0
25	12.5
35	17.5

POWER DISSIPATION

CASE CODE	MAXIMUM PERMISSIBLE POWER DISSIPATION AT +25 °C (W) IN FREE AIR
A	0.078
B	0.096
C	0.100
E	0.120

STANDARD PACKAGING QUANTITY

CASE CODE	UNITS PER 7" REEL
A	2000
B	2000
C	500
E	500

PERFORMANCE CHARACTERISTICS

ITEM	CONDITION	POST TEST PERFORMANCE				
Temperature characteristics	Measure the specified characteristics in each stage		Specified initial value	-55 °C	+85 °C	+125 °C
		Capacitance change	-	-10 % to 0 %	0 % to +10 %	0 % to +12 %
		Dissipation factor (%)	4	9	7	9
			6	10	8	10
			8	12	10	12
			10	14	12	14
			12	16	14	16
			16	20	18	20
			18	34	20	22
			20	36	22	24
			30	60	30	40
		Leakage current	Refer to Standard Ratings table	-	1000 % specified initial value or less	1250 % specified initial value or less
Solder heat resistance	Solder dip: 260 °C ± 5 °C A, B case: 10 s ± 1 s C, E case: 5 s ± 0.5 s Reflow 260 °C, 10 s ± 1 s	Capacitance change		Within ± 5 % of initial value		
		Dissipation factor		Shall not exceed initial specified value		
		Leakage current		Shall not exceed initial specified value		
Moisture resistance no load	Leave at 40 °C and 90 % to 95 % RH for 500 h	Capacitance change		Within ± 10 % of initial value		
		Dissipation factor		Shall not exceed initial specified value		
		Leakage current		Shall not exceed initial specified value		
High temperature load	85 °C. The rated voltage is applied for 2000 h	Capacitance change		Within ± 10 % of initial value		
		Dissipation factor		Shall not exceed initial specified value		
		Leakage current		Shall not exceed 125 % of initial specified value		
Thermal shock	Leave at -55 °C, normal temperature, 125 °C, and normal temperature for 30 min, 3 min, 30 min, and 3 min. Repeat this operation 5 times running	Capacitance change		Within ± 10 % of initial value		
		Dissipation factor		Shall not exceed initial specified value		
		Leakage current		Shall not exceed initial specified value		
Moisture resistance load	Leave at 40 °C and 90 % to 95 % RH. The rated voltage applied for 500 h	Capacitance change		Within ± 10 % of initial value		
		Dissipation factor		Shall not exceed 150 % of initial specified value		
		Leakage current		Shall not exceed 200 % of initial specified value		
Failure rate	85 °C. The rated voltage is applied through a protective resistor of 1 Ω/V	1 %/1000 h				

Note

- Test conditions per JIS C5101-1

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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

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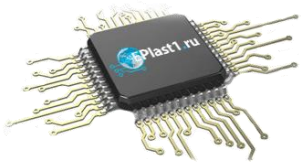
- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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