

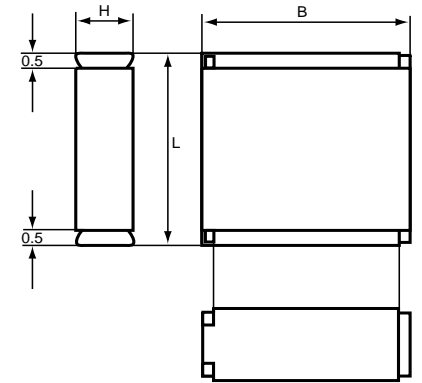
- Metallized polyphenylene sulphide (PPS) SMD
- According to IEC 60384-20

TYPICAL APPLICATIONS

Timing, filtering. Memory capacitor. High stability and accuracy. High temperature use.

CONSTRUCTION

Polyphenylene sulphide (PPS) film capacitor for surface mounting. Encapsulation in self-extinguishing material meeting the requirements of UL 94V-0.



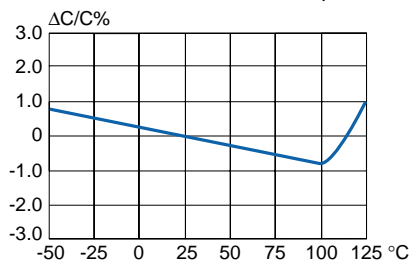
Components may be vertically mounted for decreased footprint. See page 81.

TECHNICAL DATA

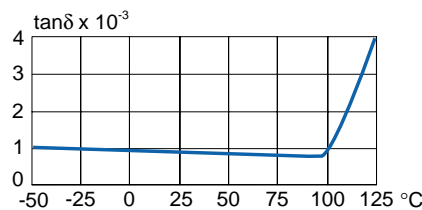
Rated voltage U_R , VDC	50	100	250
Rated voltage U_R , VAC	30	63	160
Capacitance range, nF	1 - 3900	1 - 1500	1 - 560
Capacitance tolerance	±5%, ±2.5%, ±2% other tolerances on request.		
Category	-55°C to +125°C		
temperature range	For temperatures up to +150 °C, please consult Evox Rifa.		
Rated temperature	+100°C		
Voltage derating	The rated voltage is decreased with 1.25%/°C from +100°C.		
Climatic category	55/125/56		
Voltage proof	1.6 x U_R , 60s		
Insulation resistance	Minimum value between terminals Measured at +20°C according to IEC 60384-20.		
	$C \leq 0.33\mu\text{F}$ $C > 0.33\mu\text{F}$ $U_R \leq 100\text{ V}$ 15 000 MΩ 5 000 s $U_R > 100\text{ V}$ 30 000 MΩ 10 000 s		

Dissipation factor	Max values at +23°C			
		$C \leq 100\text{nF}$	$100\text{nF} < C \leq 1\mu\text{F}$	$C > 1\mu\text{F}$
	1 kHz	0.15 %	0.15 %	0.15 %
	10 kHz	0.25 %	0.25 %	0.30 %
	100 kHz	0.50 %	0.60 %	

Pulse rise time
The capacitors can withstand an unlimited number of pulses with a dU/dt according to article table. For voltages (U) lower than the rated voltage (U_R), the specified dU/dt can be multiplied by U_R/U .



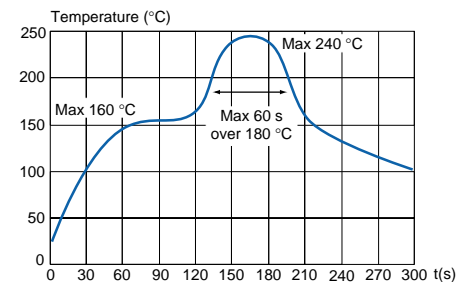
Capacitance vs temperature at 1 kHz



Dissipation factor vs temperature at 1 kHz

RECOMMENDED SOLDERING CONDITIONS

Electrode temperature, Reflow soldering
Preheating temperature should be less than 160°C. The time above 180°C should be less than 1 minute. The peak temperature must not exceed 240°C.



Recommended reflow soldering profile

ARTICLE TABLE

Capacitance μF	Dimensions in mm ± 0.2			Quantity per package		Max dU/dt $\text{V}/\mu\text{s}$	Article code
	B	H	L	Bulk	Reel		
50 VDC/30 VAC							
CHIP LENGTH 5.7 MM CODE 2220							
0.0010	5.0	2.5	5.7	2000	3100	20	SMC5.7 102J50J31 TR12
0.0012	5.0	2.5	5.7	2000	3100	20	SMC5.7 122J50J31 TR12
0.0015	5.0	2.5	5.7	2000	3100	20	SMC5.7 152J50J31 TR12
0.0018	5.0	2.5	5.7	2000	3100	20	SMC5.7 182J50J31 TR12
0.0022	5.0	2.5	5.7	2000	3100	20	SMC5.7 222J50J31 TR12
0.0027	5.0	2.5	5.7	2000	3100	20	SMC5.7 272J50J31 TR12
0.0033	5.0	2.5	5.7	2000	3100	20	SMC5.7 332J50J31 TR12
0.0039	5.0	2.5	5.7	2000	3100	20	SMC5.7 392J50J31 TR12
0.0047	5.0	2.5	5.7	2000	3100	20	SMC5.7 472J50J31 TR12
0.0056	5.0	2.5	5.7	2000	3100	20	SMC5.7 562J50J31 TR12
0.0068	5.0	2.5	5.7	2000	3100	20	SMC5.7 682J50J31 TR12
0.0082	5.0	2.5	5.7	2000	3100	20	SMC5.7 822J50J31 TR12
0.010	5.0	2.5	5.7	2000	3100	20	SMC5.7 103J50J31 TR12
0.012	5.0	2.5	5.7	2000	3100	20	SMC5.7 123J50J31 TR12
0.015	5.0	2.5	5.7	2000	3100	15	SMC5.7 153J50J31 TR12
0.018	5.0	2.5	5.7	2000	3100	15	SMC5.7 183J50J31 TR12
0.022	5.0	2.5	5.7	2000	3100	15	SMC5.7 223J50J31 TR12
0.027	5.0	2.5	5.7	2000	3100	15	SMC5.7 273J50J31 TR12
0.033	5.0	2.5	5.7	2000	3100	15	SMC5.7 333J50J31 TR12
0.039	5.0	3.0	5.7	2000	2400	6	SMC5.7 393J50J33 TR12
0.047	5.0	3.0	5.7	2000	2400	6	SMC5.7 473J50J33 TR12
0.056	5.0	4.0	5.7	2000	2100	6	SMC5.7 563J50J35 TR12
0.068	5.0	4.0	5.7	2000	2100	6	SMC5.7 683J50J35 TR12
0.082	5.0	4.0	5.7	2000	2100	6	SMC5.7 823J50J35 TR12
0.10	5.0	4.0	5.7	2000	2100	6	SMC5.7 104J50J35 TR12
CHIP LENGTH 7.3 MM CODE 2824							
0.010	6.0	2.5	7.3	2000	3100	20	SMC7.3 103J50K31 TR12
0.012	6.0	2.5	7.3	2000	3100	20	SMC7.3 123J50K31 TR12
0.015	6.0	2.5	7.3	2000	3100	20	SMC7.3 153J50K31 TR12
0.018	6.0	2.5	7.3	2000	3100	20	SMC7.3 183J50K31 TR12
0.022	6.0	2.5	7.3	2000	3100	20	SMC7.3 223J50K31 TR12
0.027	6.0	2.5	7.3	2000	3100	20	SMC7.3 273J50K31 TR12
0.033	6.0	2.5	7.3	2000	3100	15	SMC7.3 333J50K31 TR12
0.039	6.0	2.5	7.3	2000	3100	15	SMC7.3 393J50K31 TR12
0.047	6.0	2.5	7.3	2000	3100	15	SMC7.3 473J50K31 TR12
0.056	6.0	2.5	7.3	2000	3100	15	SMC7.3 563J50K31 TR12
0.068	6.0	2.5	7.3	2000	3100	15	SMC7.3 683J50K31 TR12
0.082	6.0	3.0	7.3	2000	2500	6	SMC7.3 823J50K33 TR12
0.10	6.0	3.0	7.3	2000	2500	6	SMC7.3 104J50K33 TR12
0.12	6.0	3.5	7.3	2000	2300	6	SMC7.3 124J50K35 TR12
0.15	6.0	3.5	7.3	2000	2300	6	SMC7.3 154J50K35 TR12
0.18	6.0	3.5	7.3	2000	2300	6	SMC7.3 184J50K35 TR12
0.22	6.0	4.5	7.3	1000	1700	6	SMC7.3 224J50K37 TR12
CHIP LENGTHS 10.2, 12.7 AND 16.5 MM CODES 4036, 5045 AND 6560							
0.010	9.1	5.5	10.2	1000	800	4	SMC10.2 103J50A31 TR16
0.012	9.1	5.5	10.2	1000	800	4	SMC10.2 123J50A31 TR16
0.015	9.1	5.5	10.2	1000	800	4	SMC10.2 153J50A31 TR16
0.018	9.1	5.5	10.2	1000	800	4	SMC10.2 183J50A31 TR16
0.022	9.1	5.5	10.2	1000	800	4	SMC10.2 223J50A31 TR16
0.027	9.1	5.5	10.2	1000	800	4	SMC10.2 273J50A31 TR16
0.033	9.1	5.5	10.2	1000	800	4	SMC10.2 333J50A31 TR16
0.039	9.1	5.5	10.2	1000	800	4	SMC10.2 393J50A31 TR16
0.047	9.1	5.5	10.2	1000	800	4	SMC10.2 473J50A31 TR16
0.056	9.1	5.5	10.2	1000	800	4	SMC10.2 563J50A31 TR16
0.068	9.1	5.5	10.2	1000	800	4	SMC10.2 683J50A31 TR16
0.082	9.1	5.5	10.2	1000	800	4	SMC10.2 823J50A31 TR16
0.10	9.1	5.5	10.2	1000	800	4	SMC10.2 104J50A31 TR16

ARTICLE TABLE

Capacitance μF	Dimensions in mm ± 0.2			Quantity per package		Max dU/dt $\text{V}/\mu\text{s}$	Article code
	B	H	L	Bulk	Reel		
50 VDC/30 VAC							
CHIP LENGTHS 10.2, 12.7 AND 16.5 MM CODES 4036, 5045 AND 6560							
0.12	9.1	5.5	10.2	1000	800	4	SMC10.2 124J50A31 TR16
0.15	9.1	5.5	10.2	1000	800	4	SMC10.2 154J50A31 TR16
0.18	9.1	5.5	10.2	1000	800	4	SMC10.2 184J50A31 TR16
0.22	9.1	5.5	10.2	1000	800	4	SMC10.2 224J50A31 TR16
0.27	9.1	5.5	10.2	1000	800	4	SMC10.2 274J50A31 TR16
0.33	9.1	5.5	10.2	1000	800	4	SMC10.2 334J50A31 TR16
0.39	9.1	5.5	10.2	1000	800	4	SMC10.2 394J50A31 TR16
0.47	9.1	5.5	10.2	1000	800	4	SMC10.2 474J50A31 TR16
0.56	9.1	5.5	10.2	1000	800	4	SMC10.2 564J50A31 TR16
0.68	9.1	5.5	10.2	1000	800	4	SMC10.2 684J50A31 TR16
0.82	9.1	5.5	10.2	1000	800	4	SMC10.2 824J50A31 TR16
1.0	11.5	6.5	12.7	1000	600	3	SMC12.7 105J50B31 TR24
1.2	11.5	6.5	12.7	1000	600	3	SMC12.7 125J50B31 TR24
1.5	11.5	6.5	12.7	1000	600	3	SMC12.7 155J50B31 TR24
1.8	11.5	6.5	12.7	1000	600	3	SMC12.7 185J50B31 TR24
2.2	15.0	7.0	16.5	800	500	2	SMC16.5 225J50C31 TR24
2.7	15.0	7.0	16.5	800	500	2	SMC16.5 275J50C31 TR24
3.3	15.0	7.0	16.5	800	500	2	SMC16.5 335J50C31 TR24
3.9	15.0	7.0	16.5	800	500	2	SMC16.5 395J50C31 TR24

100 VDC/63 VAC**CHIP LENGTH 5.7 MM CODE 2220**

0.0010	5.0	2.5	5.7	2000	3100	20	SMC5.7 102J100J31 TR12
0.0012	5.0	2.5	5.7	2000	3100	20	SMC5.7 122J100J31 TR12
0.0015	5.0	2.5	5.7	2000	3100	20	SMC5.7 152J100J31 TR12
0.0018	5.0	2.5	5.7	2000	3100	20	SMC5.7 182J100J31 TR12
0.0022	5.0	2.5	5.7	2000	3100	20	SMC5.7 222J100J31 TR12
0.0027	5.0	2.5	5.7	2000	3100	20	SMC5.7 272J100J31 TR12
0.0033	5.0	2.5	5.7	2000	3100	20	SMC5.7 332J100J31 TR12
0.0039	5.0	2.5	5.7	2000	3100	20	SMC5.7 392J100J31 TR12
0.0047	5.0	2.5	5.7	2000	3100	20	SMC5.7 472J100J31 TR12
0.0056	5.0	2.5	5.7	2000	3100	20	SMC5.7 562J100J31 TR12
0.0068	5.0	2.5	5.7	2000	3100	20	SMC5.7 682J100J31 TR12
0.0082	5.0	2.5	5.7	2000	3100	20	SMC5.7 822J100J31 TR12
0.010	5.0	2.5	5.7	2000	3100	20	SMC5.7 103J100J31 TR12
0.012	5.0	2.5	5.7	2000	3100	20	SMC5.7 123J100J31 TR12
0.015	5.0	2.5	5.7	2000	3100	15	SMC5.7 153J100J31 TR12
0.018	5.0	3.0	5.7	2000	2400	15	SMC5.7 183J100J33 TR12
0.022	5.0	3.0	5.7	2000	2400	15	SMC5.7 223J100J33 TR12
0.027	5.0	4.0	5.7	2000	2100	15	SMC5.7 273J100J35 TR12
0.033	5.0	4.0	5.7	2000	2100	15	SMC5.7 333J100J35 TR12

CHIP LENGTH 7.3 MM CODE 2824

0.010	6.0	2.5	7.3	2000	3100	20	SMC7.3 103J100K31 TR12
0.012	6.0	2.5	7.3	2000	3100	20	SMC7.3 123J100K31 TR12
0.015	6.0	2.5	7.3	2000	3100	20	SMC7.3 153J100K31 TR12
0.018	6.0	2.5	7.3	2000	3100	20	SMC7.3 183J100K31 TR12
0.022	6.0	2.5	7.3	2000	3100	20	SMC7.3 223J100K31 TR12
0.027	6.0	3.0	7.3	2000	2500	15	SMC7.3 273J100K33 TR12
0.033	6.0	3.0	7.3	2000	2500	15	SMC7.3 333J100K33 TR12
0.039	6.0	3.5	7.3	2000	2300	15	SMC7.3 393J100K35 TR12
0.047	6.0	3.5	7.3	2000	2300	15	SMC7.3 473J100K35 TR12
0.056	6.0	4.5	7.3	1000	1700	15	SMC7.3 563J100K37 TR12
0.068	6.0	4.5	7.3	1000	1700	15	SMC7.3 683J100K37 TR12

ARTICLE TABLE

Capacitance μF	Dimensions in mm ± 0.2			Quantity per package		Max dU/dt $\text{V}/\mu\text{s}$	Article code
	B	H	L	Bulk	Reel		
100 VDC/63 VAC							
CHIP LENGTHS 10.2, 12.7 AND 16.5 MM CODES 4036, 5045 AND 6560							
0.010	9.1	5.5	10.2	1000	800	6	SMC10.2 103J100A31 TR16
0.012	9.1	5.5	10.2	1000	800	6	SMC10.2 123J100A31 TR16
0.015	9.1	5.5	10.2	1000	800	6	SMC10.2 153J100A31 TR16
0.018	9.1	5.5	10.2	1000	800	6	SMC10.2 183J100A31 TR16
0.022	9.1	5.5	10.2	1000	800	6	SMC10.2 223J100A31 TR16
0.027	9.1	5.5	10.2	1000	800	6	SMC10.2 273J100A31 TR16
0.033	9.1	5.5	10.2	1000	800	6	SMC10.2 333J100A31 TR16
0.039	9.1	5.5	10.2	1000	800	6	SMC10.2 393J100A31 TR16
0.047	9.1	5.5	10.2	1000	800	6	SMC10.2 473J100A31 TR16
0.056	9.1	5.5	10.2	1000	800	6	SMC10.2 563J100A31 TR16
0.068	9.1	5.5	10.2	1000	800	6	SMC10.2 683J100A31 TR16
0.082	9.1	5.5	10.2	1000	800	6	SMC10.2 823J100A31 TR16
0.10	9.1	5.5	10.2	1000	800	6	SMC10.2 104J100A31 TR16
0.12	9.1	5.5	10.2	1000	800	6	SMC10.2 124J100A31 TR16
0.15	9.1	5.5	10.2	1000	800	6	SMC10.2 154J100A31 TR16
0.18	9.1	5.5	10.2	1000	800	6	SMC10.2 184J100A31 TR16
0.22	9.1	5.5	10.2	1000	800	6	SMC10.2 224J100A31 TR16
0.27	9.1	5.5	10.2	1000	800	6	SMC10.2 274J100A31 TR16
0.33	11.5	6.5	12.7	1000	600	5	SMC12.7 334J100B31 TR24
0.39	11.5	6.5	12.7	1000	600	5	SMC12.7 394J100B31 TR24
0.47	11.5	6.5	12.7	1000	600	5	SMC12.7 474J100B31 TR24
0.56	11.5	6.5	12.7	1000	600	5	SMC12.7 564J100B31 TR24
0.68	15.0	7.0	16.5	800	500	3	SMC16.5 684J100C31 TR24
0.82	15.0	7.0	16.5	800	500	3	SMC16.5 824J100C31 TR24
1.0	15.0	7.0	16.5	800	500	3	SMC16.5 105J100C31 TR24
1.2	15.0	7.0	16.5	800	500	3	SMC16.5 125J100C31 TR24
1.5	15.0	7.0	16.5	800	500	3	SMC16.5 155J100C31 TR24

250 VDC/160 VAC**CHIP LENGTH 5.7 MM CODE 2220**

0.0010	5.0	2.5	5.7	2000	3100	20	SMC5.7 102J250J31 TR12
0.0012	5.0	2.5	5.7	2000	3100	20	SMC5.7 122J250J31 TR12
0.0015	5.0	2.5	5.7	2000	3100	20	SMC5.7 152J250J31 TR12
0.0018	5.0	2.5	5.7	2000	3100	20	SMC5.7 182J250J31 TR12
0.0022	5.0	2.5	5.7	2000	3100	20	SMC5.7 222J250J31 TR12
0.0027	5.0	2.5	5.7	2000	3100	20	SMC5.7 272J250J31 TR12
0.0033	5.0	2.5	5.7	2000	3100	20	SMC5.7 332J250J31 TR12
0.0039	5.0	2.5	5.7	2000	3100	20	SMC5.7 392J250J31 TR12
0.0047	5.0	2.5	5.7	2000	3100	20	SMC5.7 472J250J31 TR12
0.0056	5.0	3.0	5.7	2000	2400	20	SMC5.7 562J250J33 TR12
0.0068	5.0	3.0	5.7	2000	2400	20	SMC5.7 682J250J33 TR12
0.0082	5.0	4.0	5.7	2000	2100	20	SMC5.7 822J250J35 TR12
0.010	5.0	4.0	5.7	2000	2100	20	SMC5.7 103J250J35 TR12

CHIP LENGTH 7.3 MM CODE 2824

0.010	6.0	3.0	7.3	2000	2500	20	SMC7.3 103J250K33 TR12
0.012	6.0	3.0	7.3	2000	2500	20	SMC7.3 123J250K33 TR12
0.015	6.0	3.0	7.3	2000	2500	20	SMC7.3 153J250K33 TR12
0.018	6.0	3.5	7.3	2000	2300	20	SMC7.3 183J250K35 TR12
0.022	6.0	3.5	7.3	2000	2300	20	SMC7.3 223J250K35 TR12

ARTICLE TABLE

Capacitance μF	Dimensions in mm ± 0.2			Quantity per package		Max dU/dt $\text{V}/\mu\text{s}$	Article code
	B	H	L	Bulk	Reel		
250 VDC/160 VAC							
CHIP LENGTHS 10.2, 12.7 AND 16.5 MM CODES 4036, 5045 AND 6560							
0.010	9.1	5.5	10.2	1000	800	10	SMC10.2 103J250A31 TR16
0.012	9.1	5.5	10.2	1000	800	10	SMC10.2 123J250A31 TR16
0.015	9.1	5.5	10.2	1000	800	10	SMC10.2 153J250A31 TR16
0.018	9.1	5.5	10.2	1000	800	10	SMC10.2 183J250A31 TR16
0.022	9.1	5.5	10.2	1000	800	10	SMC10.2 223J250A31 TR16
0.027	9.1	5.5	10.2	1000	800	10	SMC10.2 273J250A31 TR16
0.033	9.1	5.5	10.2	1000	800	10	SMC10.2 333J250A31 TR16
0.039	9.1	5.5	10.2	1000	800	10	SMC10.2 393J250A31 TR16
0.047	9.1	5.5	10.2	1000	800	10	SMC10.2 473J250A31 TR16
0.056	9.1	5.5	10.2	1000	800	10	SMC10.2 563J250A31 TR16
0.068	9.1	5.5	10.2	1000	800	10	SMC10.2 683J250A31 TR16
0.082	9.1	5.5	10.2	1000	800	10	SMC10.2 823J250A31 TR16
0.10	9.1	5.5	10.2	1000	800	10	SMC10.2 104J250A31 TR16
0.12	11.5	6.5	12.7	1000	600	8	SMC12.7 124J250B31 TR24
0.15	11.5	6.5	12.7	1000	600	8	SMC12.7 154J250B31 TR24
0.18	11.5	6.5	12.7	1000	600	8	SMC12.7 184J250B31 TR24
0.22	15.0	7.0	16.5	800	500	5	SMC16.5 224J250C31 TR24
0.27	15.0	7.0	16.5	800	500	5	SMC16.5 274J250C31 TR24
0.33	15.0	7.0	16.5	800	500	5	SMC16.5 334J250C31 TR24
0.39	15.0	7.0	16.5	800	500	5	SMC16.5 394J250C31 TR24
0.47	15.0	7.0	16.5	800	500	5	SMC16.5 474J250C31 TR24
0.56	15.0	7.0	16.5	800	500	5	SMC16.5 564J250C31 TR24

ORDERING INFORMATION

See article table and pages 18 to 23 for options and article code construction.

MARKING

- Rated capacitance
- Capacitance tolerance code
- Rated voltage code
- Capacitor type S for SMC
- Manufacturing date code according to IEC 60062 (year, month)

See also page 80.