

Surface Mount Type

TC series



POSCAP

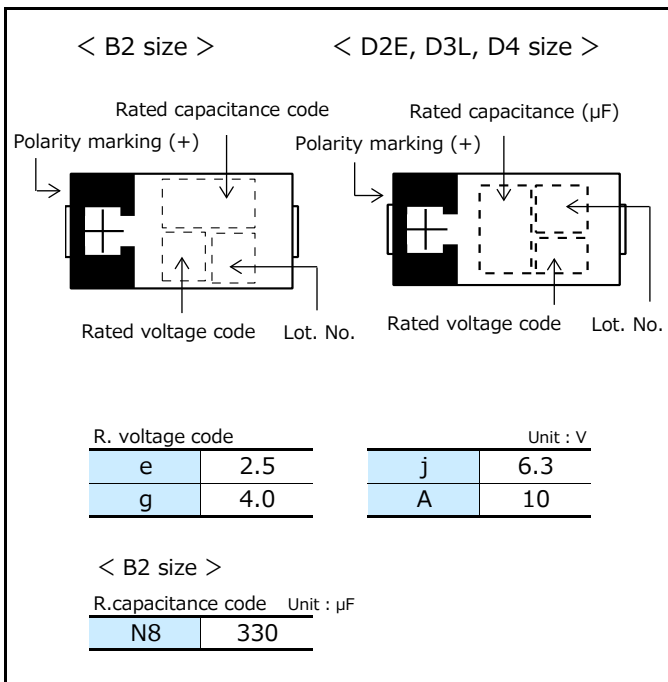
Features

- Guaranteed at 125 °C 1000h
- RoHS compliance, Halogen free

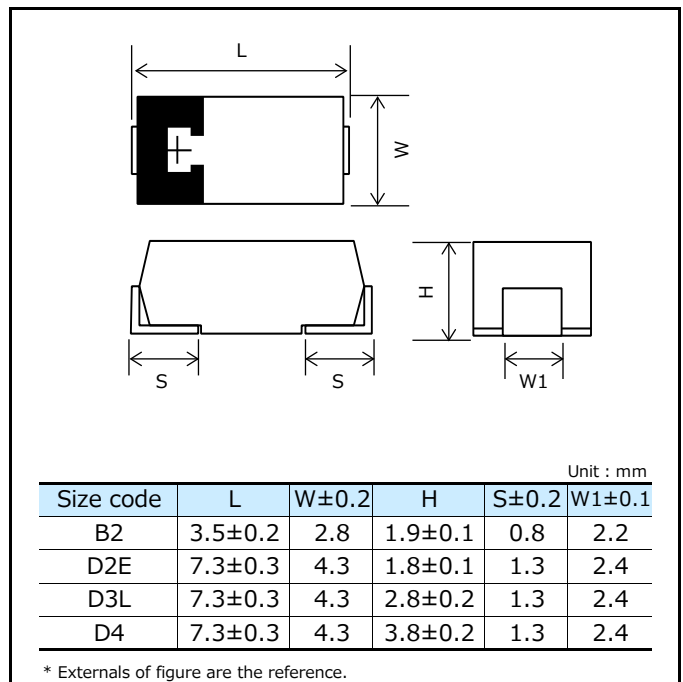
Specifications

Size code	B2	D2E	D3L	D4
Category temp. range	-55 °C to +125 °C			
Rated volt. range	2.5 V	4.0 V to 6.3 V	2.5 V to 10 V	
Category volt. range	2.0 V	3.2 V to 5.0 V	2.0 V to 8.0 V	
Rated cap. range	330 μF	100 μF to 330 μF	150 μF to 680 μF	330 μF to 1000 μF
Capacitance tolerance	±20 % (120 Hz / +20 °C)			
Leakage current	Please see the attached characteristics list			
Dissipation factor(tan δ)	Please see the attached characteristics list			
Surge voltage (V)	Rated voltage × 1.15			
Endurance	+125 °C 1000 h, category voltage applied			
	Capacitance change	Within ±20 % of the initial value		
	Dissipation factor(tan δ)	≤ 2 times of the initial limit		
	Leakage current	≤ 2 times of the initial limit		
Damp heat (Steady State)	+60 °C, 90 % to 95 % RH, 500 h, No-applied voltage			
	Capacitance change	Within +50 %, -20 % of the initial value (ETCF1000M6H(5H))		
		Within +40 %, -20 % of the initial value		
	Dissipation factor(tan δ)	≤ 1.5 times of the initial limit		
Leakage current	≤ 3 times of the initial limit			

Marking



Dimensions (not to scale)



Characteristics list

Series	Rated voltage (V)	Rated temperature (°C)	Category voltage (V)	Category temp. (°C)	Rated capaci- tance (μF)	Case size (mm)			Size code	Specifications				Standard		Floor life level			
						L	W	H		Ripple* ¹ current (mA rms)	ESR* ² (mΩ max.)	tan δ* ³	LC* ⁴ (μA)	Part number	Min. packaging q'ty (pcs)	Reflow temp ≤260℃	Reflow temp ≤250℃		
TCE	NEW	105	2.0	125	330	3.5	2.8	1.9	B2	3200	9/300kHz	0.08	165.0	ETCE330M9GB	2000	3	2a		
	2.5	105	2.0	125	680	7.3	4.3	2.8	D3L	3500	12	0.10	170.0	ETCE680MCL	2500				
		105	2.0	125		7.3	4.3	2.8		3100	15	0.10	170.0	ETCE680MFL	2500				
		105	2.0	125	1000	7.3	4.3	3.8	D4	3900	15	0.15	250.0	ETCE1000MF	2000				
	4.0	105	3.2	125	150	7.3	4.3	1.8	D2E	2800	18	0.10	60.0	4TCE150MI	3000				
		105	3.2	125		7.3	4.3	1.8		3100	15	0.10	88.0	4TCE220MF	3000				
		105	3.2	125	220	7.3	4.3	1.8		2800	18	0.10	88.0	4TCE220MI	3000				
		105	3.2	125		7.3	4.3	1.8		2400	25	0.10	88.0	4TCE220M	3000				
		105	3.2	125	330	7.3	4.3	1.8	2800	18	0.10	132.0	4TCE330MI	3000					
		105	3.2	125		7.3	4.3	1.8	2400	25	0.10	132.0	4TCE330M	3000					
		105	3.2	125	470	7.3	4.3	2.8	D3L	3500	12	0.10	188.0	4TCE470MCL	2500				
		105	3.2	125		7.3	4.3	2.8		3100	15	0.10	188.0	4TCE470MFL	2500				
		105	3.2	125		7.3	4.3	2.8		2800	18	0.10	188.0	4TCE470MIL	2500				
		105	3.2	125		7.3	4.3	2.8		2400	25	0.10	188.0	4TCE470ML	2500				
		6.3	105	5.0	125	100	7.3	4.3	1.8	D2E	2800	18	0.10	63.0	6TCE100MI			3000	
			105	5.0	125		7.3	4.3	1.8		2400	25	0.10	63.0	6TCE100M			3000	
	105		5.0	125	150	7.3	4.3	1.8	3100		15	0.10	94.5	6TCE150MF	3000				
	105		5.0	125		7.3	4.3	1.8	2800		18	0.10	94.5	6TCE150MI	3000				
	105		5.0	125	220	7.3	4.3	1.8	2400	25	0.15	94.5	6TCE150M	3000					
	105		5.0	125		7.3	4.3	1.8	2800	18	0.15	138.6	6TCE220MI	3000					
	105		5.0	125	330	7.3	4.3	2.8	2400	25	0.15	138.6	6TCE220M	3000					
	105		5.0	125		7.3	4.3	2.8	3100	15	0.10	207.9	6TCE330MFL	2500					
	105		5.0	125	470	7.3	4.3	2.8	D3L	2800	18	0.10	207.9	6TCE330MIL	2500				
	105		5.0	125		7.3	4.3	2.8		2400	25	0.10	207.9	6TCE330ML	2500				
	105		5.0	125		680	7.3	4.3		3.8	D4	3500	18	0.15	296.1			6TCE470MI	2000
	105		5.0	125			7.3	4.3		3.8		3000	25	0.15	296.1			6TCE470M	2000
	10	105	5.0	125	680	7.3	4.3	3.8	3500	18	0.15	428.4	6TCE680MI	2000					
		105	5.0	125		7.3	4.3	3.8	3000	25	0.15	428.4	6TCE680M	2000					
		105	8.0	125	220	7.3	4.3	2.8	D3L	2800	18	0.10	220.0	10TCE220MIL	2500				
		105	8.0	125		7.3	4.3	2.8		2400	25	0.10	220.0	10TCE220ML	2500				
		105	8.0	125	330	7.3	4.3	3.8	D4	3000	25	0.10	330.0	10TCE330M	2000				
TCF	2.5	105	2.0	125	680	7.3	4.3	2.8	D3L	4400	6	0.10	170.0	ETCF680M6L	2500	3			
		105	2.0	125		7.3	4.3	2.8		4400	7	0.10	170.0	ETCF680M7L	2500				
		105	2.0	125		1000	7.3	4.3	2.8	D4	4400	10	0.10	170.0	ETCF680ML			2500	
		105	2.0	125			7.3	4.3	3.8		6100	5	0.10	170.0	ETCF680M5H			2000	
		105	2.0	125	7.3	4.3	3.8	6100	5	0.10	250.0	ETCF1000M5H	2000						
		105	2.0	125	7.3	4.3	3.8	5600	6	0.10	250.0	ETCF1000M6H	2000						
	4.0	105	3.2	125	330	7.3	4.3	2.8	D3L	4000	12	0.10	132.0	4TCF330ML	2500				
		105	3.2	125	470	7.3	4.3	2.8		4400	10	0.10	188.0	4TCF470ML	2500				
		105	3.2	125	680	7.3	4.3	3.8	D4	4400	10	0.10	272.0	4TCF680MAH	2000				
	6.3	105	5.0	125	220	7.3	4.3	2.8	D3L	6100	5	0.10	138.6	6TCF220M5L	2500				
		105	5.0	125		7.3	4.3	2.8		4600	9	0.10	138.6	6TCF220M9L	2500				
		105	5.0	125		7.3	4.3	2.8		4000	12	0.10	138.6	6TCF220ML	2500				
		105	5.0	125		330	7.3	4.3		2.8	3900	9	0.10	207.9	6TCF330M9L			2500	
		105	5.0	125	470	7.3	4.3	3.8	D4	4400	10	0.10	296.1	6TCF470MAH	2000				
	10	105	8.0	125	150	7.3	4.3	2.8	D3L	3600	15	0.10	150.0	10TCF150ML	2500	-			

*1: Ripple current (100 kHz / +45 °C)

*2: ESR (100 kHz / +20 °C)

*3: tan δ (120 Hz / +20 °C)

*4: After 5 minutes

◆ Please refer to each page in this catalog for "Reflow conditions", "Taping specifications" and "Floor life level".

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