



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Surface Mount Type NEW

Series : **TC** Type : **V**
High temperature Lead-Free reflow



Features

- High ripple current (50 % higher than TP series)
- Endurance: 3000 h at 125 °C (D8 size : 2000 h)
- Added ESR specification after the endurance test
- Vibration-proof product is available upon request. (φ8 mm and larger)
- RoHS compliant

Specifications

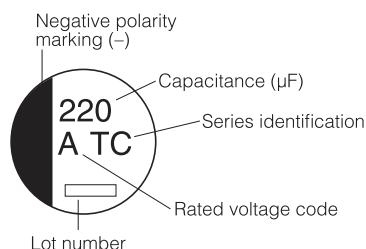
Category temperature range	-40 °C to +125 °C			
Rated voltage range	10 V.DC to 35 V.DC			
Rated capacitance range	47 µF to 470 µF			
Capacitance tolerance	±20 % (120 Hz/+20 °C)			
Leakage current	I ≤ 0.01 CV (µA) After 2 minutes			
Dissipation factor (tan δ)	Please see the attached characteristics list			
Endurance	After applying rated working voltage for 3000 hours (D8 size : 2000 h) at +125 °C±2 °C and then being stabilized at +20 °C, Capacitors shall meet the following limits.			
	Capacitance change	Within ±30 % of the initial value		
	tan δ	≤ 300 % of the initial limit		
	DC leakage current	Within the initial limit		
	ESR after endurance (Ω/100kHz)	Size code		
		D8	F	G
Initial (+20 °C)		0.45	0.2	0.15
After 2000 h (-40 °C)	40	4.5	3.5	
Shelf life	After storage for 1000 hours at +125 °C±2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance (With voltage treatment)			
Resistance to soldering heat	After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits.			
	Capacitance change	Within ±10 % of the initial value		
	tan δ	Within the initial limit		
DC leakage current	Within the initial limit			
AEC-Q200	AEC-Q200 compliant			

Frequency correction factor for ripple current

Frequency (Hz)	120	1 k	10 k	100 k to
Correction factor	0.65	0.85	0.95	1.00

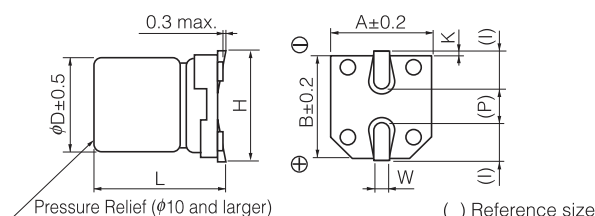
Marking

Example : 10 V.DC 220 µF
 Marking color : BLACK



R. Voltage (V.DC)	10	16	25	35
Code	A	C	E	V

Dimensions



(Unit : mm)

Size code	φD	L	A, B	H	I	W	P	K
D8	6.3	7.7±0.3	6.6	7.8 max.	2.6	0.65±0.1	1.8	0.35 ^{+0.15} _{-0.20}
F	8.0	10.2±0.3	8.3	10.0max.	3.4	0.90±0.2	3.1	0.70±0.20
G	10.0	10.2±0.3	10.3	12.0max.	3.5	0.90±0.2	4.6	0.70±0.20

Characteristics list

Endurance : 125 °C 3000 h (D8 size : 2000 h)

Rated voltage (V.DC)	Cap. (±20 %) (μF)	Case size (mm)		Size code	Specification				Part No.	Reflow	Min. Packaging Q'ty	
		φD	L		Ripple Current (100 kHz) (+125 °C) (mA r.m.s.)	ESR (100 kHz) (Ω)		tan δ (120 Hz) (+20 °C)			Taping (pcs)	
						+20 °C	-40 °C					
10	220	8	10.2	F	410	0.20	3	0.30	EEETC1A221P	(8)	500	
	330	10	10.2	G	750	0.15	2	0.30	EEETC1A331P	(8)	500	
	470	10	10.2	G	750	0.15	2	0.30	EEETC1A471P	(8)	500	
16	100	6.3	7.7	D8	300	0.45	5	0.23	EEETC1C101XP	(8)	900	
		8	10.2	F	410	0.20	3	0.23	EEETC1C101P	(8)	500	
	220	8	10.2	F	410	0.20	3	0.23	EEETC1C221P	(8)	500	
	330	10	10.2	G	750	0.15	2	0.23	EEETC1C331P	(8)	500	
	470	10	10.2	G	750	0.15	2	0.23	EEETC1C471P	(8)	500	
	25	100	8	10.2	F	410	0.20	3	0.18	EEETC1E101P	(8)	500
220		10	10.2	G	750	0.15	2	0.18	EEETC1E221P	(8)	500	
330		10	10.2	G	750	0.15	2	0.18	EEETC1E331P	(8)	500	
35	47	6.3	7.7	D8	300	0.45	5	0.16	EEETC1V470XP	(8)	900	
		8	10.2	F	410	0.20	3	0.16	EEETC1V470P	(8)	500	
	100	8	10.2	F	410	0.20	3	0.16	EEETC1V101P	(8)	500	
	220	10	10.2	G	750	0.15	2	0.16	EEETC1V221P	(8)	500	

- Please refer to the page of "Reflow Profile" and "The Taping Dimensions".
- When requesting vibration-proof product, please put the last "V" instead to "P"