

FEATURES

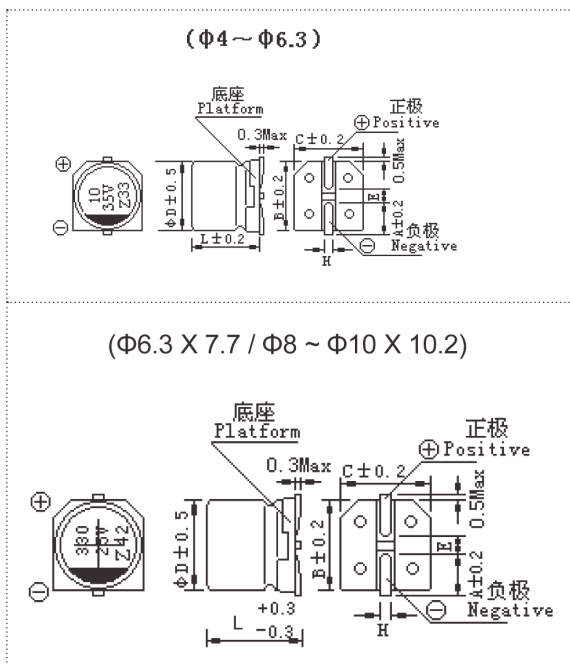
- Life time: 105°C, 2,000Hrs
- Reflow soldering is available
- Available for high density surface mounting
- High stability and reliability
- Low impedance



SPECIFICATIONS

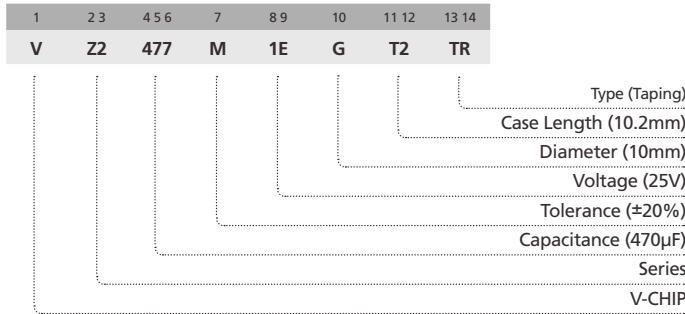
Item	Performance Characteristics										
Operating Temperature Range	-55 to +105°C										
Rated Working Voltage Range	6.3 to 100V										
Nominal Capacitance Range	1 to 1500μF										
Capacitance Tolerance	±20% at 120Hz, +20°C										
Leakage Current	$I \leq 0.01CV$ or $3(\mu A)$ whichever is greater measure after 2 minutes application of rated working voltage at +20°C										
tanδ (120Hz, +20°C)	Working Voltage (V)	6.3	10	16	25	35	50	63	80	100	
	tanδ (max.)	0.22	0.19	0.16	0.14	0.12	0.10	0.08	0.08	0.08	
Low Temperature Characteristics	Impedance ratio max. at 120Hz										
	Working Voltage (V)	6.3	10	16	25	35	50	63	80	100	
	Z-25°C / Z+20°C	2	2	2	2	2	2	2	2	2	
	Z-40°C / Z+20°C	3	3	3	3	3	3	3	3	3	
High Temperature Loading	Test time	: 2,000 hours					Post test requirements at +20°C				
	Test temperature	: +105°C					Leakage current : ≤Initial specified value				
Shelf Life	Test conditions	: Rated DC working voltage					Cap. change : within ±20% of the initial measured value (≤16V:within ±25%)				
							tanδ : ≤200% of the initial specified value				
Industrial Standard	At +105°C no voltage applied after 1,000 hours and then being stabilized at +20°C the capacitors shall meet the following limits Leakage current : ≤200% of initial specified value Cap. change : within ±20% of the initial measured value tanδ : ≤120% of the initial specified value										
	JIS C - 5101-4 (IEC 60384-4)										

DIMENSIONS & MARKING



Size	Φ4x5.4	Φ5x5.4	Φ6.3x5.4	Φ6.3x7.7	Φ8x6.2	Φ8x10.2	Φ10x10.2
A	1.8	2.2	2.6	2.6	2.9	2.9	3.3
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3
L	5.4	5.4	5.4	7.7	6.2	10.2	10.2
H	0.5 - 0.9				0.9 - 1.1		

PART NUMBER SYSTEM (EXAMPLE: 25V 470µF)



STANDARD RATINGS

Voltage (Code)		6.3V (0J)			10V (1A)			16V (1C)			25V (1E)			35V (1V)		
Cap. (µF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
4.7	475										4 x 5.4	2.2	80	4 x 5.4	2.2	80
10	106							4 x 5.4	2.2	80	4 x 5.4	2.2	80	5 x 5.4	1.2	150
22	226	4 x 5.4	2.2	80	4 x 5.4	2.2	80	5 x 5.4	1.2	150	6.3 x 5.4	0.58	230	6.3 x 5.4	0.58	230
33	336	5 x 5.4	1.2	150	5 x 5.4	1.2	150	6.3 x 5.4	0.58	230	6.3 x 5.4	0.58	230	6.3 x 5.4	0.58	230
47	476	5 x 5.4	1.2	150	6.3 x 5.4	0.58	230	6.3 x 5.4	0.58	230	6.3 x 7.7	0.34	280	6.3 x 7.7	0.34	280
100	107	6.3 x 5.4	0.58	230	6.3 x 7.7	0.34	280	6.3 x 5.4	0.52	230	6.3 x 7.7	0.34	280	8 x 10.2	0.17	450
								6.3 x 7.7	0.34	280	8 x 6.2	0.26	300			
150	157	6.3 x 5.4	0.58	230	6.3 x 7.7	0.34	280	6.3 x 7.7	0.34	280	8 x 10.2	0.17	450	10 x 10.2	0.1	670
								6.3 x 5.4	0.58	243	6.3 x 7.7	0.34	280	6.3 x 7.7	0.34	384
220	227	6.3 x 7.7	0.34	280	6.3 x 7.7	0.34	280	8 x 10.2	0.17	450	8 x 10.2	0.17	450	10 x 10.2	0.1	670
								6.3 x 7.7	0.34	280	8 x 10.2	0.17	450	10 x 10.2	0.1	670
330	337	6.3 x 7.7	0.34	280	8 x 10.2	0.17	450	8 x 10.2	0.17	450	10 x 10.2	0.1	670	10 x 10.2	0.1	670
470	477	8 x 10.2	0.17	450	8 x 10.2	0.17	450	8 x 10.2	0.17	450	10 x 10.2	0.1	670			
								10 x 10.2	0.1	670						
1000	108	8 x 10.2	0.17	450	10 x 10.2	0.1	670	10 x 10.2	0.1	670						
		10 x 10.2	0.1	670												
1500	158	10 x 10.2	0.1	670												

Maximum Allowable Ripple Current (mA rms) at 105°C 100kHz

Case Size Φ D x L (mm)

Maximum ESR (Ω) at 20°C 100kHz

Voltage (Code)		50V (1H)			63V (1J)			80V(1K)			100V (2A)		
Cap. (µF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
1	105	4 x 5.4	4.5	60									
2.2	225	4 x 5.4	4.5	60									
3.3	335	4 x 5.4	4.5	60				5 x 5.4	5	25			
4.7	475	5 x 5.4	3.5	85	5 x 5.4	3	50	6.3 x 5.4	3	40			
					6.3 x 5.4	1.5	80	6.3 x 7.7	2.4	60			
10	106	6.3 x 5.4	1.8	165	6.3 x 7.7	1.2	120	6.3 x 7.7	2.4	60	8 x 10.2	1.3	130
					6.3 x 7.7	1.2	120						
22	226	6.3 x 7.7	1.6	185	8 x 6.2	1.2	120	8 x 10.2	1.3	130	8 x 10.2	1.3	130
33	336	6.3 x 7.7	1.6	185	8 x 10.2	0.65	250	8 x 10.2	1.3	130	10 x 10.2	0.7	200
47	476	8 x 10.2	0.4	300	8 x 10.2	0.65	250	10 x 10.2	0.7	200			
		10 x 10.2	0.3	342									
68	686	10 x 10.2	0.3	342	8 x 10.2	0.65	250						
100	107	10 x 10.2	0.22	670	10 x 10.2	0.35	400						
150	157	10 x 10.2	0.2	670									
220	227	10 x 10.2	0.18	670									

Maximum Allowable Ripple Current (mA rms) at 105°C 100kHz

Case Size Φ D x L (mm)

Maximum ESR (Ω) at 20°C 100kHz

Specifications are subject to change without notice. Should a safety or technical concern arise regarding the product, please be sure to contact our sales offices or agents immediately.