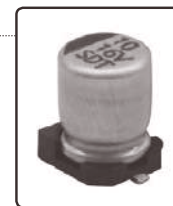


FEATURES

- Reflow soldering is available
- Available for high density surface mounting
- High stability and reliability
- Life time: 85°C, 2,000Hrs



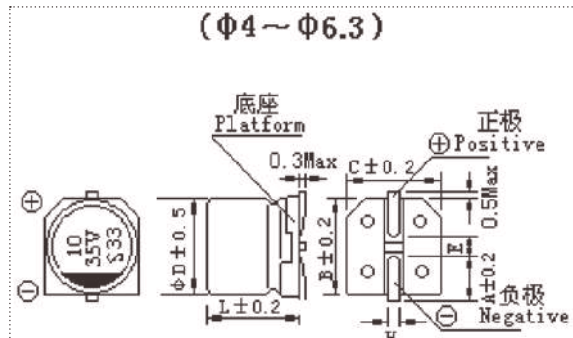
SPECIFICATIONS

Item	Performance Characteristics						
Operating Temperature Range	-40 to +85°C						
Rated Working Voltage Range	6.3 to 50V						
Nominal Capacitance Range	0.1 to 1500μF						
Capacitance Tolerance	±20% at 120Hz, +20°C						
Leakage Current	I ≤0.01CV or 3(μA) 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
	tanδ (max.) Φ4~6.3	0.26	0.22	0.18	0.16	0.13	0.12
	Φ8~10	0.35	0.26	0.20	0.16	0.14	0.12
Low Temperature Characteristics	Impedance ratio max. at 120Hz						
	Working Voltage (V)	6.3	10	16	25	35	50
	Z-40°C / Z+20°C	8	8	4	4	3	3
High Temperature Loading	Test time	: 2,000 hours			Post test requirements at +20°C		
	Test temperature	: +85°C			Leakage current : ≤Initial specified value		
	Test conditions	: Rated DC working voltage			Cap. change : within ±20% of the initial measured value		
					tanδ : ≤200% of the initial specified value		
Shelf Life	At +85°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	: ≤200% of the initial specified value					
Industrial Standard	JIS C – 5101-4 (IEC 60384-4)						

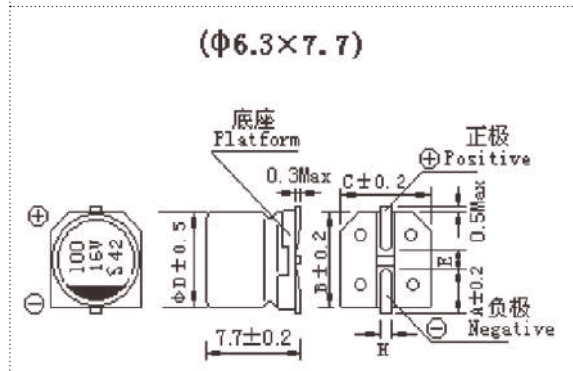
DIMENSIONS & MARKING

Size	φ4 x 5.4	φ5 x 5.4	φ6.3 x 5.4	φ6.3 x 7.7	φ8 x 10.2	φ10 x 10.2
A	1.8	2.1	2.4	2.5	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	3.1	4.5
L	5.4	5.4	5.4	7.7	10.2	10.2
H	0.5 ~ 0.9				0.9 ~ 1.1	

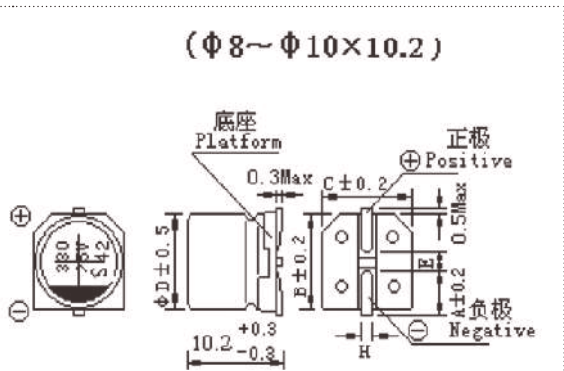
(φ4 ~ φ6.3)



(φ6.3 x 7.7)



(φ8 ~ φ10 x 10.2)



PART NUMBER SYSTEM (EXAMPLE: 16V 470μF)

1	2 3	4 5 6	7	8 9	10	11 12	13 14
V	S1	477	M	1C	F	T2	TR

Type (Taping)

Case Length (10.2mm)

Diameter (8mm)

Voltage (16V)

Tolerance (±20%)

Capacitance (470μF)

Series

V-CHIP

STANDARD RATINGS

Voltage (Code)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
4.7	475							4 x 5.4	16
10	106					4 x 5.4	23	4 x 5.4	24
22	226	4 x 5.4	28	4 x 5.4	30	5 x 5.4	37	5 x 5.4	38
33	336	5 x 5.4	37	5 x 5.4	41	5 x 5.4	44	6.3 x 5.4	52
47	476	5 x 5.4	45	6.3 x 5.4	52	5 x 5.4	48	6.3 x 5.4	60
						6.3 x 5.4	58		
100	107	5 x 5.4	50	6.3 x 5.4	76	6.3 x 5.4	86	6.3 x 7.7	130
		6.3 x 5.4	70						
220	227	6.3 x 5.4	95	6.3 x 7.7	150	6.3 x 7.7	150	8 x 10.2	232
330	337	6.3 x 7.7	150	8 x 10.2	240	8 x 10.2	270	10 x 10.2	305
470	477	8 x 10.2	265	8 x 10.2	290	8 x 10.2	280	10 x 10.2	393
						10 x 10.2	330		
1000	108	10 x 10.2	400	10 x 10.2	454				
1500	158	10 x 10.2	489						

Maximum Allowable Ripple Current (mA rms) at 85°C 120Hz

Case Size ΦD x L (mm)

Voltage (Code)		35V (1V)		50V (1H)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current
0.1	104			4 x 5.4	1.0
0.22	224			4 x 5.4	2.0
0.33	334			4 x 5.4	2.8
0.47	474			4 x 5.4	4.0
1	105			4 x 5.4	8.4
2.2	225			4 x 5.4	13
3.3	335	4 x 5.4	18	4 x 5.4	17
4.7	475	4 x 5.4	20	5 x 5.4	20
10	106	5 x 5.4	29	6.3 x 5.4	33
22	226	6.3 x 5.4	46	6.3 x 5.4	43
33	336	6.3 x 5.4	53	6.3 x 7.7	85
47	476	6.3 x 5.4	55	6.3 x 7.7	90
		6.3 x 7.7	70	8 x 10.2	140
100	107	6.3 x 7.7	80	8 x 10.2	145
		8 x 10.2	175	10 x 10.2	195
220	227	8 x 10.2	185	10 x 10.2	415
		10 x 10.2	265		
330	337	10 x 10.2	324		
470	477	10 x 10.2	395		

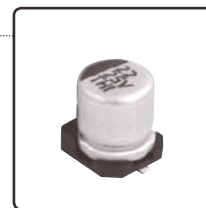
Maximum Allowable Ripple Current (mA rms) at 85°C 120Hz

Case Size ΦD x L (mm)

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.

FEATURES

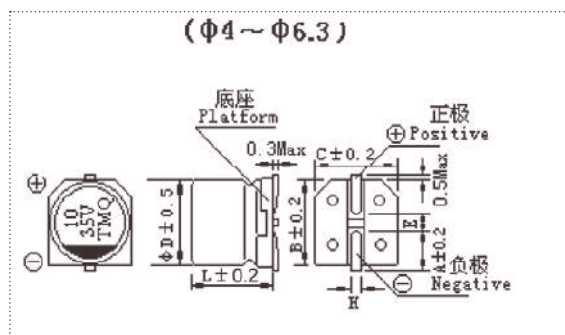
- Operating over wide temperature range
- Reflow soldering is available
- Available for high density surface mounting
- High stability and reliability



SPECIFICATIONS

Item	Performance Characteristics						
Operating Temperature Range	-55 to +105°C						
Rated Working Voltage Range	6.3 to 50V						
Nominal Capacitance Range	0.1 to 220μF						
Capacitance Tolerance	±20% at 120Hz, +20°C						
Leakage Current	I ≤0.01CV or 3(μA) whichever is greater measure after 2 minutes application of rated working voltage at +20°C						
tan δ (120Hz, +20°C)	Working Voltage (V)	6.3	10	16	25	35	50
	tanδ	0.26	0.20	0.16	0.14	0.12	0.12
Low Temperature Characteristics	Impedance ratio max. at 120Hz						
	Working Voltage (V)	6.3	10	16	25	35	50
	Z-25°C / Z+20°C	4	3	2	2	2	2
	Z-40°C / Z+20°C	8	6	4	4	3	3
High Temperature Loading	Test time	: 1,000 hours			Post test requirements at +20°C		
	Test temperature	: +105°C			Leakage current : ≤Initial specified value		
	Test conditions	: Rated DC working voltage			Cap. change : within ±20% of the initial measured value		
					tan δ : ≤200% of the initial specified value		
Shelf Life	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 the initial specified value					
	Cap. change	: within ±20% of the initial measured value					
	tanδ	: ≤200% of the initial specified value					
Industrial Standard	JIS C – 5101-4 (IEC 60384-4)						

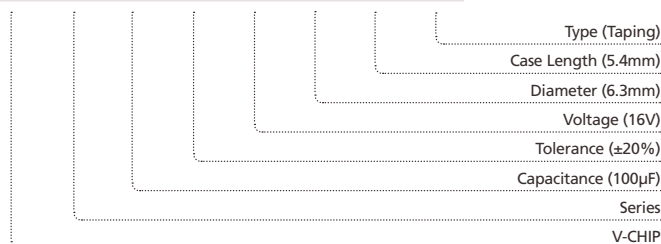
DIMENSIONS & MARKING



Size	Φ4 x 5.4	Φ5 x 5.4	Φ6.3 x 5.4
A	1.8	2.1	2.4
B	4.3	5.3	6.6
C	4.3	5.3	6.6
E	1.0	1.3	2.2
L	5.4	5.4	5.4
H	0.5 ~ 0.9		

PART NUMBER SYSTEM (EXAMPLE: 16V 100μF)

1	23	456	7	89	10	1112	1314
V	T1	107	M	1C	E	54	TR



+105°C, Surface Mount Type, General Purpose, 1,000 Hours (貼片普通品)

STANDARD RATINGS

Voltage (Code)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
4.7	475					4 x 5.4	12	4 x 5.4	13
10	106					4 x 5.4	20	4 x 5.4	14
								5 x 5.4	20
22	226	4 x 5.4	20	4 x 5.4	21	4 x 5.4	22	5 x 5.4	25
				5 x 5.4	27	5 x 5.4	31	6.3 x 5.4	36
33	336	4 x 5.4	22	4 x 5.4	23	5 x 5.4	28	5 x 5.4	29
		5 x 5.4	27	5 x 5.4	34	6.3 x 5.4	40	6.3 x 5.4	44
47	476	4 x 5.4	25	5 x 5.4	30	5 x 5.4	31	6.3 x 5.4	48
		5 x 5.4	37	6.3 x 5.4	41	6.3 x 5.4	56		
100	107	5 x 5.4	39	6.3 x 5.4	53	6.3 x 5.4	75		
		6.3 x 5.4	57						
220	227	6.3 x 5.4	67						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ΦD x L (mm)

Voltage (Code)		35V (1V)		50V (1H)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current
0.1	104			4 x 5.4	1.0
0.22	224			4 x 5.4	2.0
0.33	334			4 x 5.4	3.0
0.47	474			4 x 5.4	4.0
1	105			4 x 5.4	8.0
2.2	225			4 x 5.4	11
3.3	335			4 x 5.4	13
4.7	475	4 x 5.4	14	5 x 5.4	18
10	106	5 x 5.4	24	6.3 x 5.4	28
22	226	5 x 5.4	27	6.3 x 5.4	42
		6.3 x 5.4	40		
33	336	6.3 x 5.4	50		

Maximum Allowable Ripple Current (mArms) at 105°C 120Hz

Case Size ΦD x L (mm)

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