V-Chip Aluminum Electrolytic Capacitors

+105˚C, Surface Mount Type, General Purpose, 2,000 Hours（貼片普通品）

MVTD Series

FEATURES

- Life time: 105˚C, 2,000Hrs
- 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 100V
Nominal Capacitance Range	4.7 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	63	100
tanδ (max.)	0.26	0.20	0.16	0.14	0.12	0.12	0.12	0.12

Low Temperature Characteristics

Impedance ratio max. at 120Hz

Working Voltage (V)	6.3	10	16	25	35	50	63	100
Z-25˚C / Z+20˚C	4	3	2	2	2	2	3	3
Z-40˚C / Z+20˚C	8	6	4	4	3	3	4	4

High Temperature Loading

Test time : 2,000 hours
Test temperature : +105˚C
Test conditions : Rated DC working voltage

Post test requirements at +20˚C
Leakage current : ≤Initial specified value
Cap. change : within ±20% of the initial measured value (≤16V:within ±25%)
tanδ : ≤200% of the initial specified value

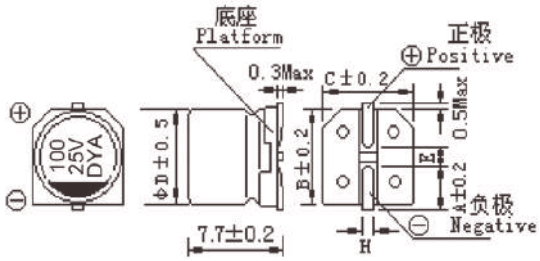
Shelf Life

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 : ≤Initial specified value
Cap. change : within ±20% of the initial measured value
tanδ : ≤200% of the initial specified value

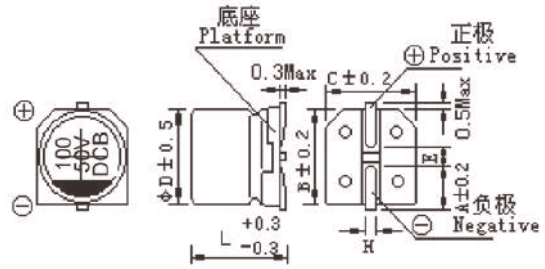
Industrial Standard	JIS C – 5101-4 (IEC 60384-4)

DIMENSIONS & MARKING

(ΦD X 7.7)



(ΦD X L ~ ΦD ~ ΦD X L)



Size	ΦD x 7.7	ΦD x 6.2	ΦD x 10.2	ΦD x 10.2
A	2.5	2.9	2.9	3.2
B	6.6	8.3	8.3	10.3
C	6.6	8.3	8.3	10.3
E	2.2	3.1	3.1	4.5
L	7.7	6.2	10.2	10.2
H	0.5 ~ 0.9		0.8 ~ 1.1	

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PART NUMBER SYSTEM (EXAMPLE: 25V 470μF)

1	2 3	4 5 6	7	8 9	10	11 12	13 14
V	TD	477	M	1E	G	T2	TR

- Type (Taping)
- Case Length (10.2mm)
- Diameter (10mm)
- Voltage (25V)
- 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
100	107							6.3 x 7.7	91
								8 x 6.2	105
220	227	6.3 x 7.7	105	6.3 x 7.7	110	6.3 x 7.7	105	8 x 10.2	175
		8 x 6.2	115	8 x 6.2	120	8 x 6.2	125		
330	337	6.3 x 7.7	110	8 x 10.2	196	8 x 10.2	195	10 x 10.2	240
		8 x 6.2	120					8 x 10.2	220
470	477	8 x 10.2	210	8 x 10.2	210	10 x 10.2	295	10 x 10.2	280
						8 x 10.2	230		
1000	108	10 x 10.2	300	10 x 10.2	315	10 x 10.2	340		
		8 x 10.2	230						
1500	158	10 x 10.2	315	10 x 12	350				

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

Case Size ΦD x L (mm)

Voltage (Code)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
4.7	475							6.3 x 7.7	35
								8 x 6.2	40
10	106					6.3 x 7.7	39	8 x 10.2	77
						8 x 6.2	45	6.3 x 7.7	35
22	226			6.3 x 7.7	51	6.3 x 7.7	48	10 x 10.2	126
				8 x 6.2	54			8 x 10.2	84
33	336	8 x 6.2	50	6.3 x 7.7	60	8 x 10.2	98	10 x 10.2	133
						6.3 x 7.7	49		
47	476	6.3 x 7.7	70	8 x 10.2	120	10 x 10.2	160	10 x 10.2	140
		8 x 6.2	78	6.3 x 7.7	75	8 x 10.2	119		
100	107	8 x 10.2	120	10 x 10.2	170	10 x 10.2	196		
		6.3 x 7.7	84	8 x 10.2	140				
220	227	10 x 10.2	220	10 x 10.2	220				
		8 x 10.2	190						
330	337	10 x 10.2	245						
470	477	10 x 12	280						

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

Case Size ΦD x L (mm)