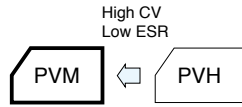


Chip Type

- GREEN CAP
- SMD
- Low ESR
- 105°C 2000hours
- Anti-cleaning solvent

- Super low ESR and high ripple current are realized.
- Guaranteed 105°C, 2000 hours.



Marking color : Blue print

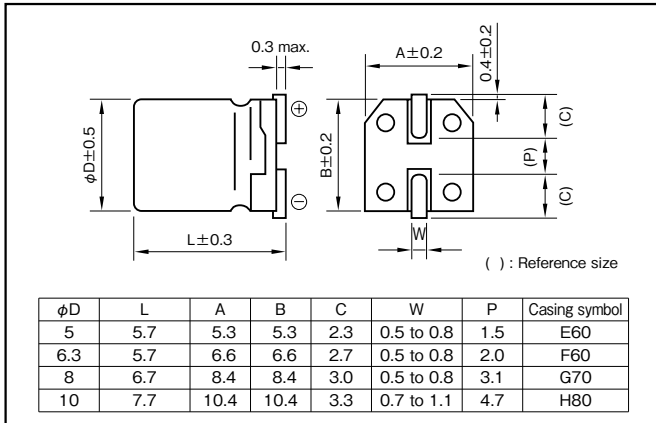
Specifications

Item	Performance	
Category temperature range (°C)	-55 to +105	
Tolerance at rated capacitance (%)	±20 (20°C, 120Hz)	
Leakage current (µA) *Note	Rated voltage (V)	2.5 to 20
	Leakage current (µA)	Less than 0.2 CV (after 2 minutes)
C : Rated capacitance (µF) , V : Rated voltage (V)		25,35 Less than 0.5 CV (after 2 minutes)
Tangent of the loss angle (tanδ)	Less than 0.12 (20°C, 120Hz)	
Characteristics at high and low temperature	Impedance ratio (max.)	Z-25°C/Z+20°C
		Z-55°C/Z+20°C
		1.15 1.25 (100kHz)
Endurance (105°C) (Applied ripple current)	Test time	2000 hours
	Leakage current	The initial specified value or less
	Percentage of capacitance change	Within ±20% of initial value
	Tangent of the loss angle	150% or less of the initial specified value
	ESR change	150% or less of the initial specified value
Bias Humidity 60°C, 90 to 95%RH	Test time	500 hours
	Leakage current	The initial specified value or less
	Percentage of capacitance change	Within ±20% of initial value
	Tangent of the loss angle	150% or less of the initial specified value
	ESR change	150% or less of the initial specified value
Characteristics of applied surge voltage	The capacitors shall be subject to 1000 cycles each consisting of charge with the surge voltage specified at 105°C for 30 seconds through a protective resistor (Rc=1kΩ) in 6 minutes per cycle. Surge voltage : 1.15 times of rated voltage	
	Leakage current	The initial specified value or less
	Percentage of capacitance change	Within ±20% of initial value
	Tangent of the loss angle	150% or less of the initial specified value
	ESR change	150% or less of the initial specified value
Failure rate	0.5% per 1000 hours maximum (Confidence level 60% at 105°C)	

*Note : If any doubt arises, measure the leakage current after following voltage application treatment.
Voltage application treatment : DC rated voltage are applied to the capacitors for 120 minutes at 105°C.

Outline Drawing

Unit : mm



- Soldering conditions are described on page 15.
- Land pattern size are described on page 13.
- The taping specifications are described on page 16.

Part numbering system (example : 4V150µF)					
PVM	4	V	151	M	E60 E
Series code	Rated voltage symbol	Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol	Taping symbol

Standard Ratings

Rated voltage (V)	Item	2.5			4			6.3			10			16		
		Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current
		φD×L (mm)	(mΩ max.)	(mA rms)	φD×L (mm)	(mΩ max.)	(mA rms)	φD×L (mm)	(mΩ max.)	(mA rms)	φD×L (mm)	(mΩ max.)	(mA rms)	φD×L (mm)	(mΩ max.)	(mA rms)
33		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
39		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
47		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
56		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
68		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100		—	—	—	5×5.7	22	2610	5×5.7	24	2500	6.3×5.7	25	2530	8×6.7	24	3010
120		—	—	—	—	—	—	5×5.7	24	2500	6.3×5.7	25	2530	8×6.7	24	3010
150		—	—	—	5×5.7	22	2610	—	—	—	—	—	—	—	—	—
180		5×5.7	21	2670	—	—	—	—	—	—	—	—	—	—	—	—
220		5×5.7	21	2670	5×5.7	22	2610	6.3×5.7	15	3160	8×6.7	21	3220	10×7.7	22	3450
270		—	—	—	6.3×5.7	15	3160	—	—	—	8×6.7	21	3220	—	—	—
330		6.3×5.7	15	3160	6.3×5.7	15	3160	8×6.7	14	3950	10×7.7	19	3800	—	—	—
390		6.3×5.7	15	3160	—	—	—	8×6.7	14	3950	—	—	—	—	—	—
470		8×6.7	13	3600	8×6.7	14	3950	8×6.7	14	3950	10×7.7	19	3800	—	—	—
560		8×6.7	13	3600	8×6.7	14	3950	—	—	—	—	—	—	—	—	—
680		8×6.7	13	3600	—	—	—	—	—	—	—	—	—	—	—	—
820		—	—	—	—	—	—	10×7.7	14	4300	—	—	—	—	—	—
1000		10×7.7	13	4450	10×7.7	14	4300	—	—	—	—	—	—	—	—	—
1200		10×7.7	13	4450	—	—	—	—	—	—	—	—	—	—	—	—

ALUMINUM

POLYMER HYBRID

105°C

Rated voltage (V)	Item	20			25			35		
		Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current
		φD×L (mm)	(mΩ max.)	(mA rms)	φD×L (mm)	(mΩ max.)	(mA rms)	φD×L (mm)	(mΩ max.)	(mA rms)
10		—	—	—	6.3×5.7	60	1500	—	—	—
15		—	—	—	—	—	—	8×6.7	150	1000
22		6.3×5.7	50	1650	8×6.7	50	1800	—	—	—
33		—	—	—	—	—	—	10×7.7	100	1800
39		—	—	—	10×7.7	45	2100	—	—	—
47		8×6.7	45	2000	—	—	—	—	—	—
82		10×7.7	40	2500	—	—	—	—	—	—

(Note) Rated ripple current : 105°C, 100kHz ; ESR : 20°C, 100kHz