

**Chip Type**

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

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



Marking color : Blue print

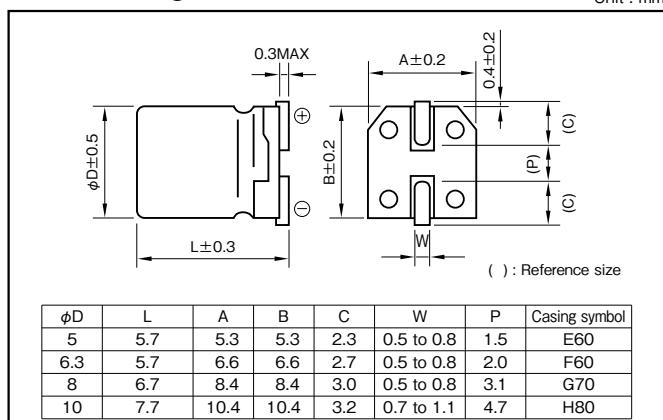
**Specifications**

Item	Performance		
Category temperature range (°C)	−55 to +105		
Tolerance at rated capacitance (%)	$\pm 20$ (20°C, 120Hz)		
Leakage current ( $\mu$ A) *Note	Rated voltage (V)	2.5 to 20	25,35
C : Rated capacitance ( $\mu$ F) ; V : Rated voltage (V)	Leakage current ( $\mu$ A)	Less than 0.2 CV (after 2 minutes)	Less than 0.5 CV (after 2 minutes)
Tangent of the loss angle ( $\tan\delta$ )	Less than 0.12 (20°C)		
Characteristics at high and low temperature	Impedance ratio (max.) Z−25°C/Z+20°C : 1.15 Z−55°C/Z+20°C : 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 $\pm 20\%$ of initial value	
	Tangent of the loss angle	150% or less of the initial specified value	
	E.S.R. 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 $\pm 20\%$ of initial value	
	Tangent of the loss angle	150% or less of the initial specified value	
	E.S.R. 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 ( $R_c=1k\Omega$ ) 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 $\pm 20\%$ of initial value	
	Tangent of the loss angle	150% or less of the initial specified value	
	E.S.R. 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



**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

- Soldering conditions are described on page 13.
- Land pattern size are described on page 11.
- The taping specifications are described on page 14.

NOTE : Design, Specifications are subject to change without notice.  
It is recommended that you shall obtain technical specifications from ELNA to ensure that the component is suitable for your use.

## Standard Ratings

Rated voltage (V)	2.5			4			6.3			10			16			
	Item	Case	ESR	Rated ripple current												
		φD×L (mm)	(mΩ max.)	(mAmps)												
33	—	—	—	—	—	—	—	—	—	—	—	—	—	5×5.7	35	2070
39	—	—	—	—	—	—	—	—	—	—	—	—	—	5×5.7	35	2070
47	—	—	—	—	—	—	—	—	—	—	5×5.7	28	2310	6.3×5.7	28	2340
56	—	—	—	—	—	—	—	—	—	—	5×5.7	28	2310	—	—	—
68	—	—	—	—	—	—	—	—	—	—	5×5.7	28	2310	6.3×5.7	28	2340
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	—	—	—	—	—	—	—	—	—	—	—	—	

Rated voltage (V)	20			25			35			
	Item	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current
		φD×L (mm)	(mΩ max.)	(mAmps)	φD×L (mm)	(mΩ max.)	(mAmps)	φD×L (mm)	(mΩ max.)	(mAmps)
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 ; E.S.R. : 20°C, 100kHz

# Mouser Electronics

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