

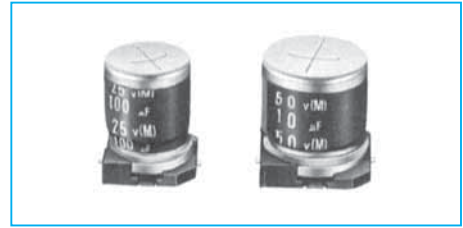
## Chip Type 125°C Capacitors

- SMD
- Vibration Resistance
- 125°C 1250hours
- 105°C 5000hours
- Anti-cleaning solvent

- Compatible with surface mounting.
- For Vibration resistance.
- Supplied with carrier taping.
- Guarantees 1250 hours at 125°C. (φ8 : 1000 hours)
- Guarantees 5000 hours at 105°C. (φ8 : 4000 hours)



↑ Vibration resistance



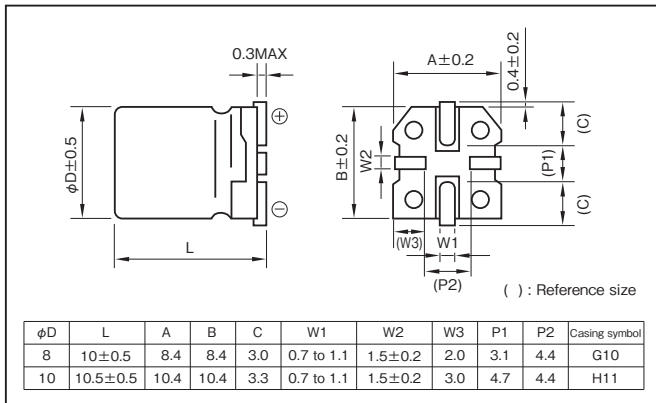
Marking color : Gold print on a brown sleeve

### Specifications

Item	Performance								
Category temperature range (°C)	-40 to +125								
Tolerance at rated capacitance (%)	±20 (20°C,120Hz)								
Leakage current (μA)	Less than 0.02CV or 3 whichever is larger (after 2 minutes) C : Rated capacitance (μF) ; V : Rated voltage (V) (20°C)								
Tangent of loss angle (tanδ)	Rated voltage (V)	10	16	25	35	50	63		
	tanδ (max.)	0.28	0.26	0.24	0.20	0.19	0.18	(20°C,120Hz)	
Characteristics at high and low temperature	Rated voltage (V)	10	16	25	35	50	63		
	Impedance ratio (max.)	Z-25°C/Z+20°C	3	3	3	3	3	3	
		Z-40°C/Z+20°C	5	5	5	5	5	5	(120Hz)
Endurance (Applied ripple current)	Test temp.	125°C				105°C			
	Test time	φ10 : 1250h, φ8 : 1000h				φ10 : 5000h, φ8 : 4000h			
	Percentage of capacitance change	Within ±30% of initial value							
	Tangent of the loss angle	300% or less of the initial specified value							
	Leakage current	The initial specified value or less							
Shelf life	Test temp.	125°C				105°C			
	Test time	500 h				1000h			
	Percentage of capacitance change	Within ±20% of initial value							
	Tangent of the loss angle	200% or less of the initial specified value							
	Leakage current	The initial specified value or less							
Applicable standards	JIS C5101-1 1998, -18 1999 (IEC 60384-1 1992, -18 1993)								

### Outline Drawing

Unit : mm



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

### Coefficient of Frequency for Rated Ripple Current

Frequency (Hz)	120	1k	10k	100k
Rated voltage (V)				
10 to 63	0.77	0.88	0.96	1

### Part numbering system (example : 16V220μF)

RTK	—	16	V	221	M	H11	U	□
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol		Taping symbol

### Standard Ratings

Rated voltage (V)	10				16				25				35				50				63			
	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current
Rated capacitance (μF)	φD×L(mm)	(Ω)	(Ω max.)	(mArms)	φD×L(mm)	(Ω)	(Ω max.)	(mArms)	φD×L(mm)	(Ω)	(Ω max.)	(mArms)	φD×L(mm)	(Ω)	(Ω max.)	(mArms)	φD×L(mm)	(Ω)	(Ω max.)	(mArms)	φD×L(mm)	(Ω)	(Ω max.)	(mArms)
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8×10	32	0.80	38	—	—	—	—
																	10×10.5	32	0.65	45	—	—	—	—
22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8×10	14	0.80	38	8×10	14	1.00	33
																	10×10.5	14	0.65	48	10×10.5	14	0.67	48
33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8×10	10	0.80	40	—	—	—	—
																	10×10.5	10	0.60	58	—	—	—	—
47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8×10	7.1	0.68	65	8×10	6.7	0.80	40
																	10×10.5	7.1	0.58	70	10×10.5	6.7	0.60	58
100	—	—	—	—	8×10	4.3	0.68	60	8×10	4.0	0.68	60	10×10.5	3.3	0.55	102	—	—	—	—	—	—	—	—
																	8×10	2.1	0.68	60	10×10.5	2.0	0.55	107
220	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10×10.5	2.1	0.55	111	—	—	—	—
																	10×10.5	1.4	0.55	111	—	—	—	—
330	—	—	—	—	10×10.5	1.3	0.55	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

(Note) Impedance : 20°C, 100kHz ; Rated ripple current : 125°C, 100kHz ; ESR : 20°C, 120Hz