

High Precision Thick Film Chip Resistors



Type: **ERJ PB3, PB6**

Features

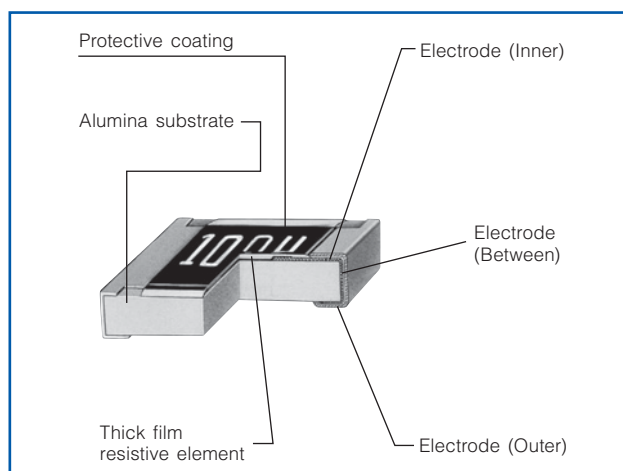
- Achieve the resistance tolerance $\pm 0.1\%$ with high reliability metal glaze thick film resistor
- Guarantee the temperature coefficient of Resistance $\pm 50 \times 10^{-6}/^{\circ}\text{C}$ in high resistance range up to $1\text{M}\Omega$
- Suitable for both reflow and flow soldering
- High power ... 0.20 W : 0603 inch / 1608 mm size (ERJPB3)
 0.25 W : 0805 inch / 2012 mm size (ERJPB6)
- Reference Standards... IEC 60115-8, JIS C 5201-8, EIAJ RC-2134B
- AEC-Q200 qualified
- RoHS compliant

■ **As for Packaging Methods, Land Pattern, Soldering Conditions and Safety Precautions,**
Please see Data Files

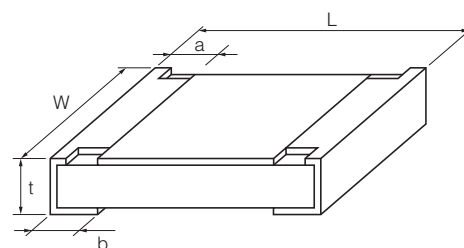
Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12	
E	R	J	P	B	6	B	1	0	0	2	V	
Product Code		Size, Power Rating		Resistance Tolerance		Resistance Value			Packaging Methods			
Thick Film Chip Resistors		Code	Inch	Power R.	Code	Tolerance	The first three digits are significant figures of resistance and the last one denotes number of zeros following. Example : 5110 → 511 Ω : 1003 → 100k Ω			Code	Packaging	Part No.
		PB3	0603	0.20 W	B	± 0.1 %				V	Punched Carrier Taping 4 mm pitch, 5,000 pcs.	ERJPB3 ERJPB6
		PB6	0805	0.25 W	D	± 0.5 %						

Construction



Dimensions in mm (not to scale)



Part No. (inch size)	Dimensions (mm)					Mass (Weight) [g/1000 pcs.]
	L	W	a	b	t	
ERJPB3 (0603)	1.60 ± 0.15	0.80 ± 0.15 ± 0.05	0.15 ± 0.15 ± 0.10	0.25 ± 0.10	0.45 ± 0.10	2
ERJPB6 (0805)	2.00 ± 0.20	1.25 ± 0.10	0.25 ± 0.20	0.40 ± 0.20	0.60 ± 0.10	4

Ratings

Part No. (inch size)	Power Rating ⁽³⁾ at 70 °C (W)	Limiting Element Voltage ⁽¹⁾ (V)	Maximum Overload Voltage ⁽²⁾ (V)	Resistance Tolerance (%)	Resistance Range (Ω)	T.C.R. ($\times 10^{-6}/^{\circ}\text{C}$)	Category Temperature Range (°C)
ERJPB3 (0603)	0.20	150	200	± 0.1 ± 0.5	200 to 100k (E24, E96)	± 50	-55 to +155
ERJPB6 (0805)	0.25	150	200	± 0.1 ± 0.5	200 to 1M (E24, E96)	± 50	-55 to +155

(1) Rated Continuous Working Voltage (RCWW) shall be determined from $\text{RCWW} = \sqrt{\text{Power Rating} \times \text{Resistance Values}}$, or Limiting Element Voltage listed above, whichever less.
 (2) Overload (Short-time Overload) Test Voltage (SOTV) shall be determined from $\text{SOTV} = 2.5 \times \text{RCWW}$ or max. Overload Voltage listed above whichever less.
 (3) Use it on the condition that the case temperature is below 155 °C.

Power Derating Curve

For resistors operated in ambient temperatures above 70 °C, power rating shall be derated in accordance with the figure on the right.

