High Precision Thick Film Chip Resistors



Type: ERJ PB3, PB6

Features

- Achieve the resistance tolerance ±0.1 % with high reliability metal glaze thick film resistor
- Guarantee the temperature coefficient of Resistance ±50×10^{-6}/°C in high resistance range up to 1M Ω
- 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

Thick Film Chip Resistors

Size, Power Rating

Code	Inch	Power R.
PB3	0603	0.20 W
PB6	0805	0.25 W

Resistance Tolerance

Code	Tolerance
B	± 0.1 %
D	± 0.5 %

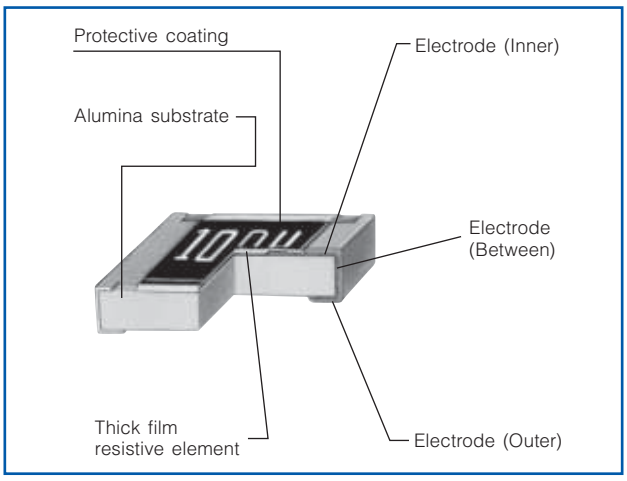
Resistance Value

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

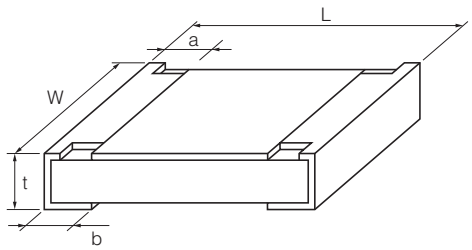
Packaging Methods

Code	Packaging	Part No.
V	Punched Carrier Taping 4 mm pitch, 5,000 pcs.	ERJPB3 ERJPB6

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)	$1.60^{\pm0.15}$	$0.80^{+0.15}_{-0.05}$	$0.15^{+0.15}_{-0.10}$	$0.25^{\pm0.10}$	$0.45^{\pm0.10}$	2
ERJPB6 (0805)	$2.00^{\pm0.20}$	$1.25^{\pm0.10}$	$0.25^{\pm0.20}$	$0.40^{\pm0.20}$	$0.60^{\pm0.10}$	4

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.

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. ($\times 10^{-6}$/°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 (RCWV) shall be determined from RCWV=$\sqrt{\text{Power Rating} \times \text{Resistance Values}}$, or Limiting Element Voltage listed above, whichever less.
(2) Overload (Short-time Overload) Test Voltage (SOTV) shall be determined from SOTV=2.5 × RCWV 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.

