Precision Thick Film Chip Resistors

Precision Thick Film Chip Resistors

Type: ERJ XG, 1G ERJ 1R, 2R, 3R, 6R ERJ 3E, 6E, 8E, 14, 12, 1T



1001

Features

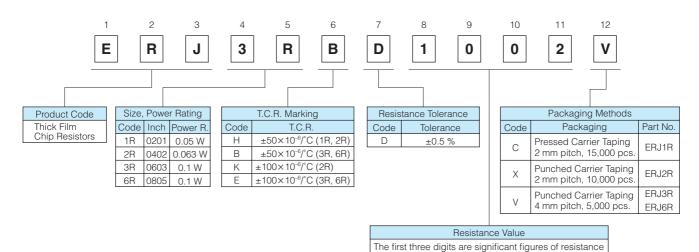
- Small size and lightweight
- High reliability

Metal glaze thick film resistive element and three layers of electrodes

- Compatible with placement machines Taping packaging available
- Suitable for both reflow and flow soldering
- Low Resistance Tolerance
 ERJXG, 1G, 2R, 3E, 6E, 8E, 14, 12, 1T Type: ±1 %
 ERJ1R, 2R, 3R, 6R Type: ±0.5 %
- Reference Standards IEC 60115-8, JIS C 5201-8, EIAJ RC-2134B
- AEC-Q200 qualified (Exemption ERJXG, ERJ1R)
- RoHS compliant
- As for Packaging Methods, Land Pattern, Soldering Conditions and Safety Precautions, Please see Data Files

Explanation of Part Numbers

ERJ1R, 2R, 3R, 6R Type, ±0.5 %



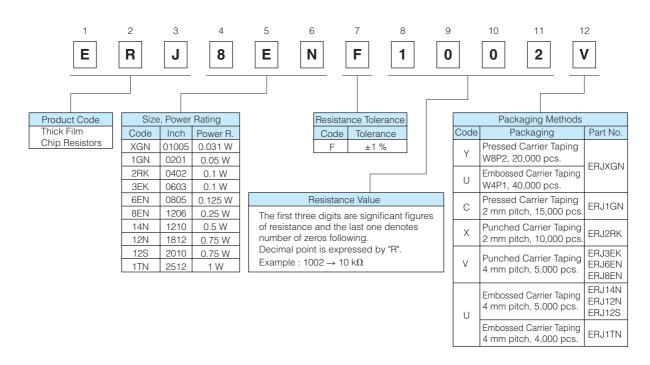
and the last one denotes number of zeros following.

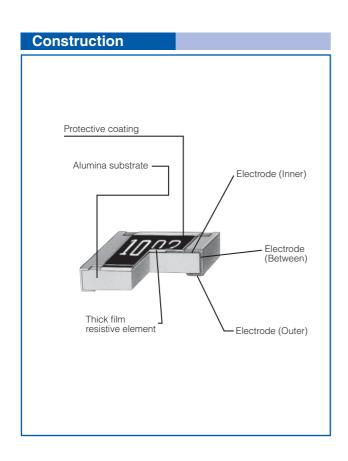
Example: $1002 \rightarrow 10 \text{ k}\Omega$

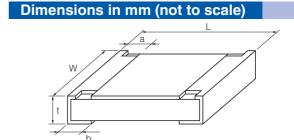
Panasonic

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● ERJXG, 1G, 2R, 3E, 6E, 8E, 14, 12, 1T Type, ±1 %







Part No.		Mass (Weight)				
(inch size)	L	W	а	b	t	[g/1000 pcs.]
ERJXG (01005)	0.40 ^{±0.02}	0.20 ^{±0.02}	0.10 ^{±0.03}	0.10 ^{±0.03}	0.13 ^{±0.02}	0.04
ERJ1G, 1R (0201)	0.60 ^{±0.03}	0.30 ^{±0.03}	0.10 ^{±0.05}	0.15 ^{±0.05}	0.23 ^{±0.03}	0.15
ERJ2R□ (0402)	1.00 ^{±0.05}	0.50 ^{±0.05}	0.20 ^{±0.10}	0.25 ^{±0.05}	0.35 ^{±0.05}	0.8
ERJ3R□ ERJ3EK (0603)	1.60 ^{±0.15}	0.80+0.15	0.30 ^{±0.20}	0.30 ^{±0.15}	0.45 ^{±0.10}	2
ERJ6R□ ERJ6EN (0805)	2.00 ^{±0.20}	1.25 ^{±0.10}	0.40 ^{±0.20}	0.40 ^{±0.20}	0.60 ^{±0.10}	4
ERJ8EN (1206)	3.20+0.05	1.60+0.05	0.50 ^{±0.20}	0.50 ^{±0.20}	0.60 ^{±0.10}	10
ERJ14N (1210)	3.20 ^{±0.20}	2.50 ^{±0.20}	0.50 ^{±0.20}	0.50 ^{±0.20}	0.60 ^{±0.10}	16
ERJ12N (1812)	4.50 ^{±0.20}	3.20 ^{±0.20}	0.50 ^{±0.20}	0.50 ^{±0.20}	0.60 ^{±0.10}	27
ERJ12S (2010)	5.00 ^{±0.20}	2.50 ^{±0.20}	0.60 ^{±0.20}	0.60 ^{±0.20}	0.60 ^{±0.10}	27
ERJ1TN (2512)	6.40 ^{±0.20}	3.20 ^{±0.20}	0.65 ^{±0.20}	0.60 ^{±0.20}	0.60 ^{±0.10}	45

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Ratings

<±0.5 %>

Part No. (inch size)	Power Rating at 70 °C (W)	Limiting Element Voltage ⁽¹⁾ (V)	Maximum Overload Voltage ⁽²⁾ (V)	Resistance Tolerance (%)	Resistance Range (Ω)	T.C.R. (×10 ⁻⁶ /°C)	Category Temperature Range (°C)
ERJ1RH (0201)	0.05	15	30	±0.5	1 k to 1 M (E24, E96)	±50	-55 to +125
ERJ2RH (0402)	0.063	50	100	±0.5	100 to 100 k (E24, E96)	±50	-55 to +125
ERJ2RK (0402)	0.063	50	100	±0.5	10 to 97.6 102 k to 1 M (E24, E96)	±100	-55 to +125
ERJ3RB (0603)	0.1	50	100	±0.5	100 to 100 k (E24, E96)	±50	-55 to +125
ERJ3RE (0603)	0.1	50	100	±0.5	10 to 97.6 102 k to 1 M (E24, E96)	±100	-55 to +125
ERJ6RB (0805)	0.1	150	200	±0.5	100 to 100 k (E24, E96)	±50	-55 to +125
ERJ6RE (0805)	0.1	150	200	±0.5	10 to 97.6 102 k to 1 M (E24, E96)	±100	-55 to +125

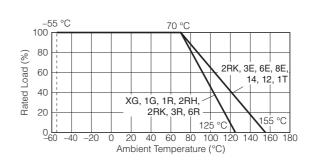
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Q21 762							
Part No. (inch size)	Power Rating at 70 °C (W)	Limiting Element Voltage ⁽¹⁾ (V)	Maximum Overload Voltage ⁽²⁾ (V)	Resistance Tolerance (%)	Resistance Range (Ω)	T.C.R. (×10 ⁻⁶ /°C)	Category Temperature Range (°C)
ERJXGN (01005)	0.031	15	30	±1	10 to 1 M (E24, E96)	<100 Ω : ±300 100 Ω ≤ : ±200	-55 to +125
ERJ1GN (0201)	0.05	25	50	±1	10 to 1 M ⁽³⁾ (E24, E96)	±200	-55 to +125
ERJ2RK (0402)	0.1	50	100	±1	10 to 1 M ⁽³⁾ (E24, E96)	±100	-55 to +155
ERJ3EK (0603)	0.1	75	150	±1	10 to 1 M (E24, E96)	±100	-55 to +155
ERJ6EN (0805)	0.125	150	200	±1	10 to 2.2 M (E24, E96)	±100	-55 to +155
ERJ8EN (1206)	0.25	200	400	±1	10 to 2.2 M (E24, E96)	±100	-55 to +155
ERJ14N (1210)	0.5	200	400	±1	10 to 1 M (E24, E96)	±100	-55 to +155
ERJ12N (1812)	0.75	200	500	±1	10 to 1 M (E24, E96)	±100	-55 to +155
ERJ12S (2010)	0.75	200	500	±1	10 to 1 M (E24, E96)	±100	-55 to +155
ERJ1TN (2512)	1	200	500	±1	10 to 1 M (E24, E96)	±100	-55 to +155

⁽¹⁾ Rated Continuous Working Voltage (RCWV) shall be determined from RCWV=√Power Rating × Resistance Values, or Limiting Element Voltage listed above, whichever less.

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.



⁽²⁾ Overload (Short-time Overload) Test Voltage (SOTV) shall be determined from SOTV=2.5 (Only ERJ2RK ±1% =2.0) × RCWV or max. Overload Voltage listed above whichever less.

⁽³⁾ Please contact us when you need a type with a resistance of less than 10 Ω_{\cdot}