

**Features**

- **Small size and light weight**  
For PCB size reduction and lightweight products
- **High reliability**  
Metal glaze thick film resistive element and 3 layered electrode results in high reliability
- **Matching with placement machines**  
Bulk, Taping and magazine packagings for automatic placement machines
- **Solderability**  
Suitable for both reflow soldering and flow soldering



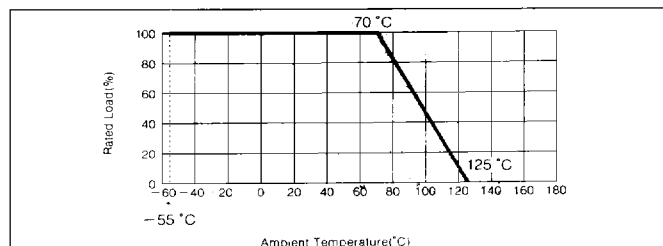
Applicable Document:  
EIA-RS-481 and EIA-481-1

**Specifications**

Size	Part No.	Power Rating at 70°C	Maximum RCWW*	Maximum Overload Voltage	Resistance Range (Ω)			Standard Res. Values
					Tolerance	Min	Ma x	
0402	ERJ2RKF	1/16W	50V	100V	±1	10	1.0M	E-24,96
	ERJ2GJ(G)	1/16 W	50 V	100 V	±2	10	1.0 M	E-24
0603	ERJ3KEF	1/16 W	50 V	100 V	±5	10	1.0 M	E-24
	ERJ3GSYJ(G/K)	1/16 W	50 V	100 V	±1	10	1.0 M	E-24, 96
	ERJ6ENF	1/10 W	150 V	200 V	±2	10	1.0 M	E-24
0805	ERJ6GEYJ(G/K)	1/10 W	150 V	200 V	±5	10	1.0 M	E-24
	ERJ6GMYJ(G/K)	1/10 W	150 V	200 V	±10	0.47	10.0 M	E-12
	ERJ8ENF	1/8 W	200 V	400 V	±1	10	1.0 M	E-24, 96
1206	ERJ8GEYJ(G/K)	1/8 W	200 V	400 V	±2	10	1.0 M	E-24
	ERJ8GCYJ(G/K)	1/8 W	200 V	400 V	±5	10	1.0 M	E-24
	ERJ14NF	1/4 W	200 V	400 V	±10	0.39	10.0M	E-12
1210	ERJ14YJ(G/K)	1/4 W	200 V	400V	±1	10	1.0 M	E-24, 96
	ERJ12NF	1/2 W	200 V	400 V	±2	10	1.0 M	E-24
1812	ERJ12YJ(G/K)	1/2 W	200 V	400 V	±5	10	1.0 M	E-24
	ERJ1WNF	1W	250V	500V	±10	1.0	1.0 M	E-12
	ERJ1WYJ(G/K)	1 W	250 V	500 V	±1	10	1.0 M	E-24,96
2512	ERJ1WYJ(G/K)	1 W	250 V	500 V	±2	10	1.0 M	E-24
					±5	10	1.0 M	E-24
					±10	1.0	1.0 M	E-12

\* Rated continuous working voltage (RCWW) shall be determined from  $RCWW = \sqrt{\text{Power Rating} \times \text{Resistance Value}}$ , or max RCWW listed above, whichever less.

**Power Derating Curve**



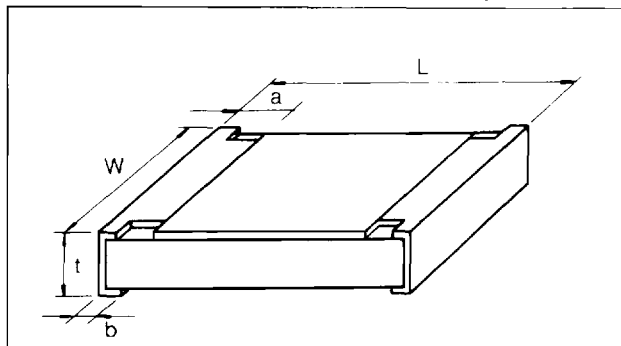
**Standard Precision ( $\pm 2\%$ ,  $\pm 5\%$ ,  $\pm 10\%$ )**

<b>E R J</b>		<b>8 G E</b>		<b>Y</b>	<b>J</b>	<b>1 0 2</b>	<b>V</b>
<b>Common Code</b> Thick Film Chip Resistors	<b>Power Rating</b>		<b>Marking</b>		<b>Resistance Tolerance</b>		<b>Nominal Resistance Value</b>
	Code	Power R.	Code	Marking	Code	Tol.	The first two digits are significant figures of resistance and the third one denotes number of zeros following. Jumper is expressed by R00.
	2GE	1/16 W	Y	Value marking on black side	G	$\pm 2\%$	
	3GS	1/16 W	Nil	No marking	J	$\pm 5\%$	
	6GE	1/10 W			K	$\pm 10\%$	
	8GE	1/8 W			0	Jumper	
	14	1/4 W					
	12	1/2 W					
	1W	1 W					
	<b>Suffix for Packaging</b>						
	Code	Package					
	Nil	Std. Bulk packing					
	V	Std. Taped & reel (7" Reel)					
	H	Plastic embossed taped & reel					
	B	Bulk case					
	Z	10000 pcs. T. & R. (10" Reel)					
	A	20000 pcs. T. & R. (13" Reel)					
	X	2 mm pitch T. & R.					

**High Precision ( $\pm 1\%$ )**

<b>E R J</b>		<b>8 E</b>		<b>N</b>	<b>F</b>	<b>1 0 0 2</b>	<b>V</b>
<b>Common Code</b> Thick Film Chip Resistors	<b>Power Rating</b>		<b>Marking</b>		<b>Resistance Tolerance</b>		<b>Nominal Resistance Value</b>
	Code	Power R.	Code	Marking	Code	Tol.	The first three digits are significant figures of resistance and the 4th one denotes number of zeros following.
	2R	1/16W	N	Value marking on black side (4 digit)	F	$\pm 1\%$	
	3E	1/16 W	K	No marking			
	6E	1/10 W					
	8E	1/8 W					
	14	1/4 W					
	12	1/2 W					
	1W	1W					
	<b>Suffix for Packaging</b>						
	Code	Package					
	Nil	Std. Bulk packing					
	V	Std. Taped & reel (7" Reel)					
	H	Plastic embossed taped & reel					
	B	Bulk case					
	Z	10000 pcs. T. & R. (10" Reel)					
	A	20000 pcs. T. & R. (13" Reel)					
	X	2 mm pitch T. & R.					

**Dimensions in mm (not to scale)**



Size	Part No.	Dimensions (mm)					Net Weight (1000 pcs.)
		L	W	a	b	t	
0402	ERJ2GE	$\pm 0.05$	$\pm 0.05$	$\pm 0.10$	$\pm 0.05$	$\pm 0.05$	0.8 g
	ERJ2RKF	1.00	0.50	0.20	0.25	0.35	
0603	ERJ3GSY	$\pm 0.15$	$\pm 0.15$ $\pm 0.05$	$\pm 0.20$	$\pm 0.15$	$\pm 0.10$	0.45
	ERJ3EKF	1.60	0.80	0.30	0.30	0.45	
0805	ERJ6GMY	$\pm 0.20$	$\pm 0.10$	$\pm 0.25$	$\pm 0.30$	$\pm 0.10$	4 g
	ERJ6GEY	2.00	1.25	0.40	$\pm 0.25$	0.60	
	ERJ6ENF				0.40		
1206	ERJ8GCY	$\pm 0.05$	$\pm 0.05$		$\pm 0.30$	$\pm 0.10$	10g
	ERJ8GEY	3.20	1.60	0.50	$\pm 0.25$		
	ERJ8ENF				0.50		
1210	ERJ14Y	$\pm 0.20$	$\pm 0.20$	$\pm 0.25$	$\pm 0.25$	$\pm 0.10$	16 g
	ERJ14NF	3.20	2.50	0.50	0.50	0.60	
1812	ERJ12Y	$\pm 0.20$	$\pm 0.20$	$\pm 0.25$	$\pm 0.25$	$\pm 0.10$	27 g
	ERJ12NF	4.50	3.20	0.50	0.50	0.60	
2512	ERJ1WY	$\pm 0.20$	$\pm 0.20$	$\pm 0.25$	$\pm 0.25$	$\pm 0.20$	79 g
	ERJ1WNF	6.40	3.20	0.65	1.30	1.10	