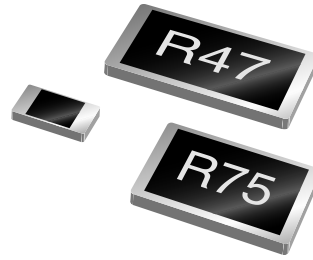


Metal Film Chip Resistors, Rectangular Type

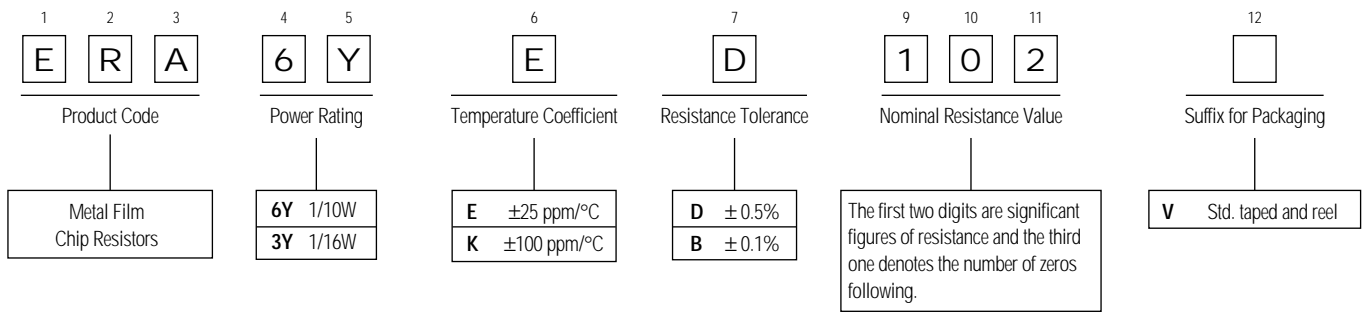
Series: ERA



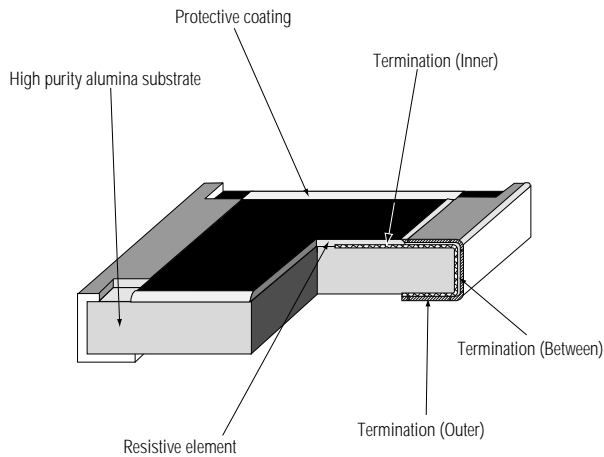
■ Features

- Small size and lightweight—
PWB size reduction and lightweight products
- High reliability—
Low T.C.R. and current noise, excellent non-linearity
- Matching with placement machines
Taping packages for automatic placement machine
- Solderability
Suitable for both reflow soldering and flow soldering
- Approved under the ISO-9001 system
- Conforming to IEC115-8, JIS C5223

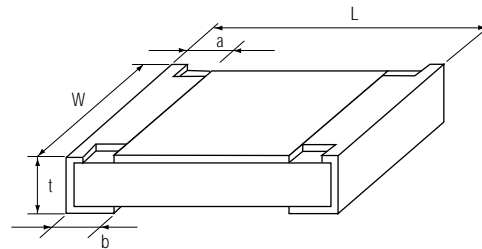
■ Explanation of Part Numbers



■ Construction



■ Dimensions in mm (not to scale)



Part No.	Dimensions					Net Weight (1000 pcs.)
	L	W	a	b	t	
ERA6Y	2.00 ±0.20	1.25 ±0.10	0.40 ±0.25	0.40 ±0.25	0.50 ±0.10	4g
ERA3Y	1.60 ±0.20	0.80 ±0.20	0.30 ±0.20	0.30 ±0.20	0.45 ±0.10	2g

■ Ratings

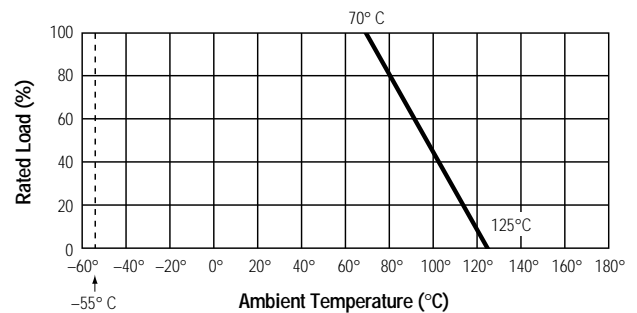
Part No.	Power Rating at 70°C	Maximum RCWV*	Maximum Overload Voltage**	Resistive Tolerance (%)	Resistance Range		T.C.R. (ppm/°C)	Standard Resistance Values
					min.	max.		
ERA6Y	1/10 W	100 V	200 V	± 0.5	100	100K	± 25	E-24
					110K	1M	± 100	
				± 0.1	560	100K	± 25	
					110K	1M	± 100	
ERA3Y	1/16 W	75 V	150 V	± 0.5	100	33K	± 25	E-24
					36K	330K	± 100	
				± 0.1	560	33K	± 25	
					36K	330K	± 100	

* Rated Continuous Working Voltage (RCWV) shall be determined from $RCWV = \sqrt{\text{Rated Power} \times \text{Resistance Value}}$, or max. RCWV listed above, whichever is less.

** Short-time Overload Test Voltage (SOTV) shall be determined from $SOTV = 2.5 \times \text{Power Rating}$ or max. Overload Voltage listed above whichever is less.

Power Derating Curve

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

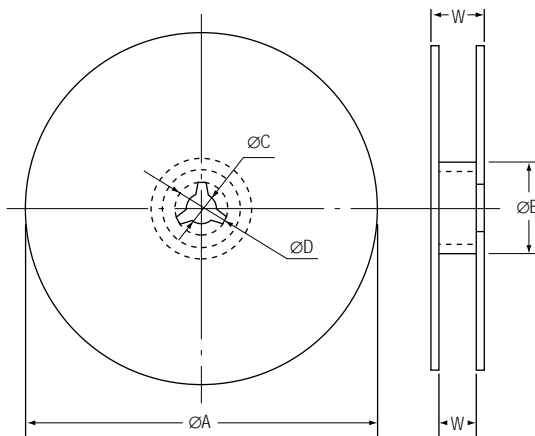


■ Packaging Methods

Standard Quantity

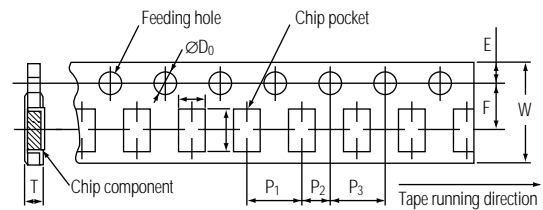
Type	Thickness	Paper Taping
ERA6Y	0.5 mm	5000 pcs./reel
ERA3Y	0.45 mm	5000 pcs./reel

Taping Reel



Type	øA	øB	øC	øD	W	T
6Y	180.0 ⁺⁰ _{-3.0}	60 min.	13.0 ^{±1.0}	33.0 ^{±5.0}	10.0 ^{±1.0}	12.0 ^{±2.0}
3Y						

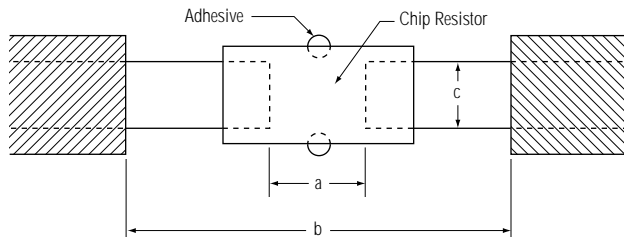
Paper Taping



Type	A	B	W	F	E
6Y	1.60 ^{±0.15}	2.40 ^{±2.00}	8.00 ^{±0.20}	3.50 ^{±0.05}	1.75 ^{±0.10}
3Y	1.10 ^{±0.10}	1.90 ^{±0.10}			
Type	P ₁	P ₂	P ₀	øD ₀	T
6Y	4.00 ^{±0.10}	2.00 ^{±0.05}	4.00 ^{±0.10}	1.50 ^{+0.50} ₋₀	0.84 ^{±0.05}
3Y					0.64 ^{±0.05}

■ Safety Precautions

In the case of flow soldering, the land width must be smaller than the Chip Resistor width to properly control the solder amount properly. Generally, the land width should be chip resistor width (W) 0.7 to 0.8 times the width of chip resistor. In the case of reflow soldering, solder amount can be adjusted; therefore the land width should be set to 1.0 to 1.3 times chip resistor width (W).



Part No.	Dimensions		
	a	b	c
ERA6Y	1.0 to 1.4	3.2 to 3.8	0.9 to 1.4
ERA3Y	0.7 to 0.9	2.0 to 2.2	0.8 to 1.0

1. Rated Power and Ambient Temperature

Keep the rated power and ambient temperature within the specified derating curve.

Place and fit resistors and other components on board, taking into consideration of temperature rise due to approaching of these components with each other.

2. External Shock

Mechanical shock during automatic mounting or handling of board after chip being mounted may cause break, flaw, or fall-off of paint film of resistor that may impair initial characteristics.

Avoid nipping of resistor with hard tool (a pair of pliers or tweezers) as it may damage protective film or electrode of resistor and may affect resistor's performance.

3. Application of Pulse

When pulse is applied to a resistor, the peak value of pulse shall be within rated value.

- The resistor is neither non-combustible nor flame-retardant.
- When soldering with soldering iron, never touch the body of the chip resistor with the tip of the soldering iron. When using the soldering iron with a tip at high temperature, solder for a time as short as possible (three seconds or less up to 350°C).
- Avoid immersion of chip resistor in solvent for a long time. Use solvent after the effect of immersion is confirmed.
- Do not use the product in humid atmospheres.