102

102



Metal Film (Thin Film) Chip Resistors, High Reliability Type

Type: ERA 1A, 2A, 3A, 6A, 8A

Features

• High reliability Stable at high temperature and humidity

(85 °C 85 %RH rated load, Category temperature range: -55 °C to +155 °C)

• High accuracy Small resistance tolerance and Temperature Coefficient of Resistance

• High performance Low current noise, excellent linearity

• Reference Standard ······ IEC 60115-8, JIS C 5201-8, EIAJ RC-2133B

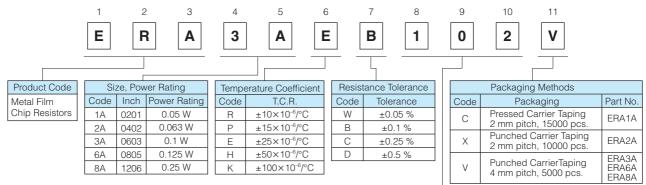
AEC-Q200 qualified

RoHS compliant

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

Explanation of Part Numbers

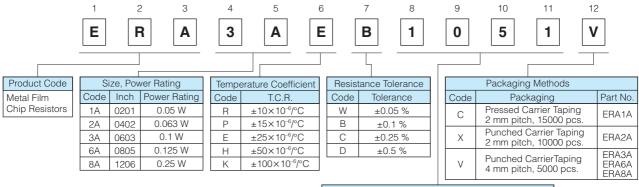
• E24 Series



Resistance Value

Consist of three figures for E24 series resistance value. The first two digits are significant figures of resistance and the third one denotes number of zeros following. (example) 102 : 1k Ω

• E96 Series and other Resistance values



Resistance Value

Consist of four figures for E96 series resistance value. The first three digits are significant figures of resistance and the fourth one denotes number of zeros following. (example) 1051 : 1.05k Ω

note: Duplicated resistance values as E24 series part numbers shall follow E24 part numbers. (apply three digit resistance value)



High reliability

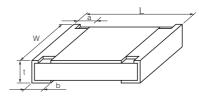
metal film

Construction Protective coating Electrode (Inner) Alumina substrate

Electrode (Between)

Electrode (Outer)





Part No.		Mass (Weight)				
(inch size)	L	W	а	b	t	[g/1000 pcs.]
ERA1A (0201)	0.60 ^{±0.03}	$0.30^{\pm0.03}$	0.15 ^{±0.05}	$0.15^{\pm0.05}$	$0.23^{\pm0.03}$	0.14
ERA2A (0402)	1.00 ^{±0.10}	0.50±8:38	0.15 ^{±0.10}	$0.25^{\pm0.10}$	0.35 ^{±0.05}	0.6
ERA3A (0603)						
ERA6A (0805)	2.00 ^{±0.20}	1.25 ^{±0.10}	0.40 ^{±0.25}	0.40 ^{±0.25}	0.50 ^{±0.10}	4
ERA8A (1206)	3.20 ^{±0.20}	1.60 = 8: 15	0.50 ^{±0.25}	0.50 ^{±0.25}	0.60 ^{±0.10}	8

Ratings

Part No. (inch size)	Power Rating at 85 °C (W)	Limiting Element Voltage ⁽¹⁾ (V)	Maximum Overload Voltage ⁽²⁾ (V)	Part No. (detail)	Resistance Tolerance (%)	T.C.R. (×10 ⁻⁶ /°C)	Resistance Range ⁽³⁾⁽⁴⁾ (Ω)	Category Temperature Range (°C)
ERA1A (0201) 0.05		25	50	ERA1AEB	±0.1	±25	100 to 10k (E24, E96)	
				ERA1AEC	±0.25		(== 1, == 3)	
	0.05			ERA1ARC	±0.25	±10	100 to 10k (E24, E96)	
				ERA1ARB	±0.1		, , ,	
				ERA1ARW	±0.05		1k to 10k (E24, E96)	
		50	100	ERA2AKD	±0.5	±100	10 to 46.4 (E24, E96)	
				ERA2AED	±0.5	±25	47 to 400k (F04 F00)	
				ERA2AEC	±0.25		47 to 100k (E24, E96)	
ERA2A (0402) 0.063	0.063			ERA2AEB	±0.1			
				ERA2APC	±0.25	±15	200 to 47k (E24, E96)	
				ERA2APB	±0.1		, , ,	
				ERA2ARC	±0.25	±10	200 to 47k (E24, E96)	
				ERA2ARB	±0.1			
				ERA3AHD	±0.5	±50 ±25	10 to 46.4 (E24, E96)	-55 to +155
				ERA3AED	±0.5		47	
		75	150	ERA3AEC	±0.25		47 to 330k (E24, E96)	
ERA3A				ERA3AEB	±0.1	±15		
(0603) 0.1	0.1			ERA3APC	±0.25		470 to 100k (E24, E96)	
				ERA3APB	±0.1		, , ,	
				ERA3ARC	±0.25		44 4 4001 (504 500)	
				ERA3ARB	±0.1		1k to 100k (E24, E96)	
				ERA3ARW	±0.05		10 1 10 1 (504 500)	
ERA6A (0805) 0.125		100	200	ERA6AHD	±0.5	±50 ±25	10 to 46.4 (E24, E96)	
				ERA6AED	±0.5		47	
				ERA6AEC	±0.25		47 to 1M (E24, E96)	
	0.405			ERA6AEB	±0.1			
	0.125	100		ERA6APC	±0.25	±15	470 to 100k (E24, E96)	
				ERA6APB	±0.1		, , ,	
				ERA6ARC	±0.25	±10	41. t- 4001. (F04 F00)	
				ERA6ARB	±0.1		1k to 100k (E24, E96)	
				ERA6ARW	±0.05		10 to 10 (F04 F00)	
ERA8A (1206) 0.2		0.25 150	300	ERA8AHD	±0.5	±50	10 to 46.4 (E24, E96)	
				ERA8AED	±0.5	±25 ±15 ±10	47 +- 414 /504 500)	
				ERA8AEC	±0.25		47 to 1M (E24, E96)	
	0.25			ERA8AEB	±0.1			
				ERA8APC	±0.25		470 to 100k (E24, E96)	
				ERA8APB	±0.1		<u> </u>	
				ERA8ARC	±0.25		11/ 10 1001/ (504 500)	
				ERA8ARB	±0.1		1k to 100k (E24, E96)	
				ERA8ARW	±0.05			

⁽¹⁾ Rated Continuous Working Voltage (RCWV) shall be determined from RCWV=√Rated Power × 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) E192 series resistance values are also available. Please contact us for details. (4) Duplicated resistance values between E96, E192 and E24 series shall follow E24 Part Numbers. (apply three digit resistance value)

Metal Film (Thin Film) Chip Resistors, High Reliability Type

Power Derating Curve

For resistors operated in ambient temperatures above 85 °C, power rating shall be derated in accordance with the figure on the right.

