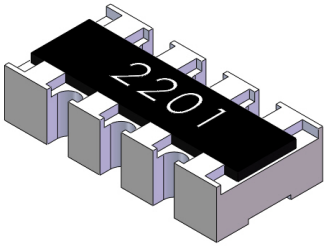
Thick Film Chip Resistor Arrays
Convex Terminal

RoHS Compliant



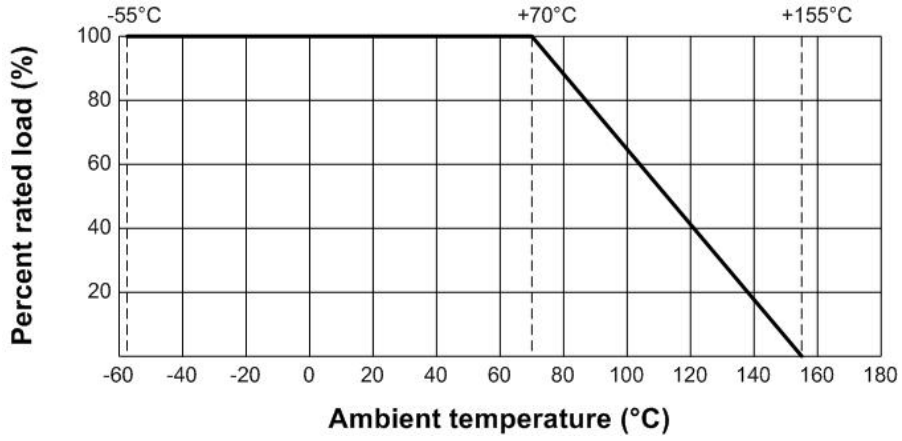
1. Ratings:

Type	4 Elements, 0804
Power Rating	0.0625W (1/16W)
Rated Current (Jumper)	1A
Max. Working Voltage	50 V
Max. Overload Voltage	100 V
Dielectric Withstanding Voltage	100 V
Temperature Range	-55°C to +155°C
Ambient Temperature	70°C

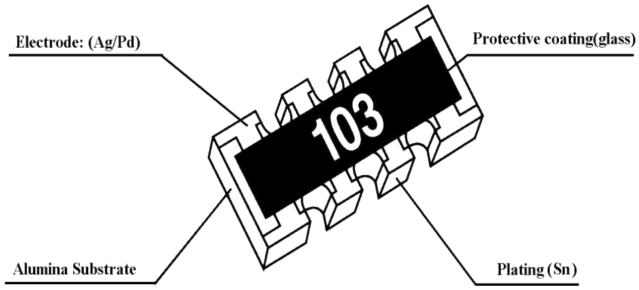
1.1 Power rating:

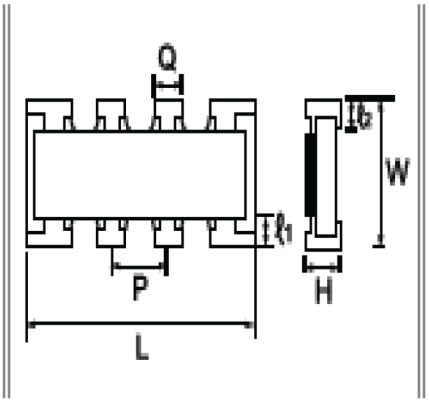
Resistors shall have a power rating based on continuous load operation at an ambient temperature of 70°C . For temperature in excess of 70°C , The load shall be derate as shown in figure 1.

Figure 1

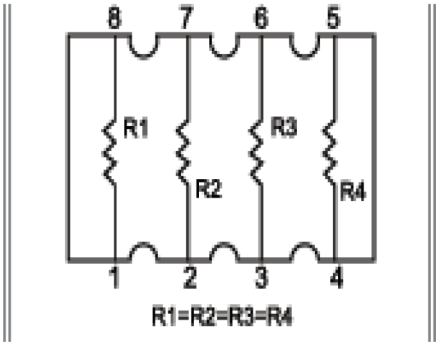


2. Construction





3. Power rating and dimensions



Dimension

Dimension (mm)						
L	W	H	ℓ1	ℓ2	P	Q
2 ±0.1	1 ±0.1	0.45 ±0.1	0.2 ±0.15	0.3 ±0.15	0.5 ±0.05	0.3 ±0.05

Power Rating

Power Rating at 70°C	Tolerance %	Resistance Range	T.C.R. PPM/ºC	Standard Resistance values
0.0625W(1/16W)	Jumper ± 5	< 50mΩ 10Ω to 1MΩ	±200	E-24

4. Marking :

4.1 Resistors

A. Marking for E-26 series in 0804 size : 4 Digits

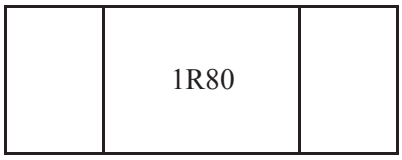
*The first 3 digits are significant figures of resistance and the 4th digit denoted number of zeros.

Ex.

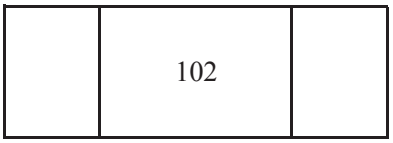
	1003	

100KΩ

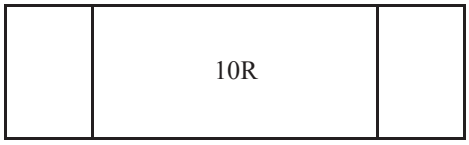
*For ohmic values below 100 Ω, letter"R" is for decimal point.



B. Marking for E-24 series.
*The first 2 digits are significant figures of resistance and the 3rd digit denoted number of zeros.

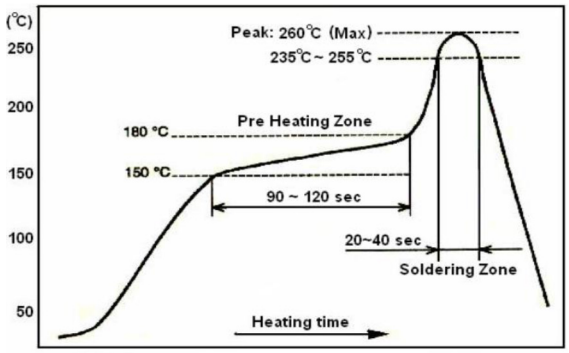


**For ohmic values below 100 Ω, letter "R" is for decimal point.



5. Performance specification

Characteristics	Limits	Test Methods (JIS C 5201-1)
Temperature Coefficient	Refer to item 5.	5.2 Natural resistance change per temp. degree centigrade. $\frac{R2-R1}{R1(t2-t1)} \times 10^6$ (PPM/°C) R1: Resistance value at room temperature (T1) R2: Resistance value at room temp. plus 100°c (T2) (Sub-clause 4.8)
Short time overload	Resistance change rate is ± 5% (2% + 0.1Ω) Max. ± 1% (1% + 0.1Ω) Max.	5.5 Permanent resistance change after the application of a potential of 2.5 times RCWV for 5 seconds
Dielectric withstanding voltage	No evidence of flashover mechanical damage, arcing or insulation break down	4.7 Clamped in the trough of a 90° metallic V-block and shall be tested at AC potential respectively specified in the table 1. for 60 +10/-0 secs.
Terminal bending	Resistance change rate is ± (1% + 0.05Ω) Max.	6.1.4 Twist of Test Board Y/X = 5/90 mm for 10 seconds

<table>
<tr><th>Characteristics</th><th>Limits</th><th>Test Methods
(JIS C 5201-1)</th></tr>
<tr><td rowspan="2">Solderability</td><td>95 % coverage Min.</td><td>6.5 Test temperature of solder : 245 ± 3°C
Dipping them solder : 2~3 seconds</td></tr>
<tr><td>Go up tin rate bigger than half of end pole.</td><td>Reflow:
 

Max Soldering Time: 2 times
Temperature profile for evaluation</td></tr>
<tr><td>Soldering heat</td><td>Resistance change rate is:
± (1%+0.05Ω) Max.</td><td>4.18 Dip the resistor into a solder bath having a temperature of 260°C±3°C and hold it for 10±1 seconds.</td></tr>
<tr><td>Temperature cycling</td><td>Resistance change rate is
± 5% (1% + 0.05Ω) Max.
± 1% (0.5% + 0.05Ω) Max.</td><td>7.4 Resistance change after continuous 5 cycles for duty cycle specified below :
<table>
<tr><th>Step</th><th>Temperature</th><th>Time</th></tr>
<tr><td>1</td><td>-55°C ±3°C</td><td>30 mins</td></tr>
<tr><td>2</td><td>Room temp.</td><td>10 to 15 mins</td></tr>
<tr><td>3</td><td>+155°C ±2°C</td><td>30 mins</td></tr>
<tr><td>4</td><td>Room temp.</td><td>10 to 15 mins</td></tr>
</table></td></tr>
<tr><td>Load life in humidity</td><td>Resistance change rate is
± 5% (3% + 0.1Ω) Max.
± 1% (1% + 0.1Ω) Max.</td><td>7.9 Resistance change after 1,000 hours (1.5 hours “on”, 0.5 hour “off”) at RCWV in a humidity chamber controlled at 40°C ±2°C and 90 to 95 % relative humidity</td></tr>
<tr><td>Load Life</td><td>Resistance change rate is
± 5% (3% + 0.1Ω) Max.
± 1% (1% + 0.1Ω) Max.</td><td>7.10 Permanent resistance change after 1,000 hours operating at RCWV, with duty cycle of (1.5 hours”on”, 0.5 hour”off”) at 70°C ± 2°C ambient</td></tr>
</table>

Part Number Table

Description	Part Number
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, Jumper, 0804	MP005575
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 1.2K, 0804	MP005576
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 1.5K, 0804	MP005577
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 100K, 0804	MP005578
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 100R, 0804	MP005579
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 10K, 0804	MP005580
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 10R, 0804	MP005581
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 12K, 0804	MP005582
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 150R, 0804	MP005583
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 15R, 0804	MP005584
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 1K, 0804	MP005585
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 1M, 0804	MP005586
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 2.2K, 0804	MP005587
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 2.7K, 0804	MP005588
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 20K, 0804	MP005589
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 220R, 0804	MP005590
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 22K, 0804	MP005591
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 22R, 0804	MP005592
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 27R, 0804	MP005593
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 2K, 0804	MP005594
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 3.3K, 0804	MP005595
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 330R, 0804	MP005596
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 33K, 0804	MP005597
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 33R, 0804	MP005598
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 39K, 0804	MP005599
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 3K, 0804	MP005600
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 4.3K, 0804	MP005601
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 4.7K, 0804	MP005602
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 4.7R, 0804	MP005603
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 470R, 0804	MP005604
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 47K, 0804	MP005605
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 47R, 0804	MP005606
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 5.1K, 0804	MP005607
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 51K, 0804	MP005608
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 51R, 0804	MP005609
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 560R, 0804	MP005610
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 56K, 0804	MP005611

Description	Part Number
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 56R, 0804	MP005612
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 6.8K, 0804	MP005613
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 680R, 0804	MP005614
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 68R, 0804	MP005615
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 75R, 0804	MP005616
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 8.2K, 0804	MP005617
Chip Resistor Array, Thick Film, Isolated 4 Elements, 1/16W, 5%, 82R, 0804	MP005618