Surface Mount Resistor Kits

Features:

- Ring binder surface mount resistor kits.
- 0603, 0805 and 1206 case sizes.
- 5% and 1% tolerance options.
- Available in E6, E12 and E24 series values.
- Kits contain 100 pieces of each ohmic value from 10R to 1M plus 0R.
- All resistors are individually marked and supplied on 8mm tapes.
- Kits can be restocked when required.

Specification Table

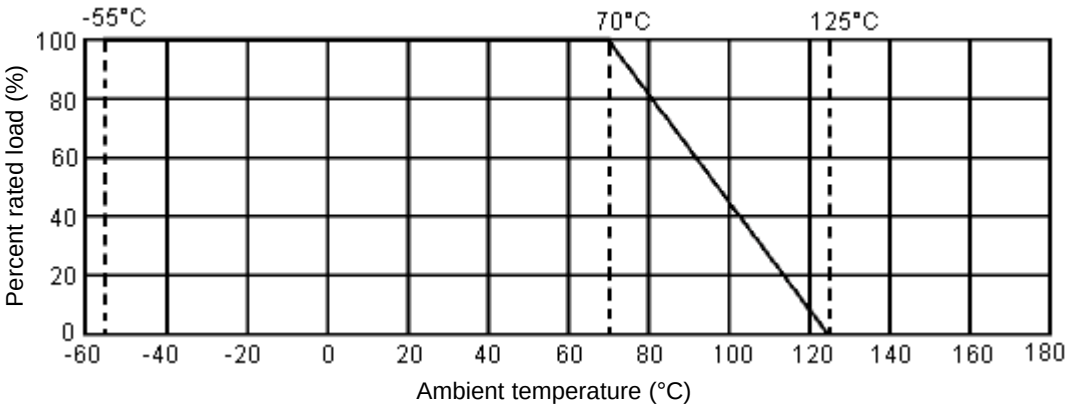
Type	Power Rating (W)	Resistance Tolerance	Nominal Resistance
RMC 0805	1/10	F	1KΩ

Ratings:

Type	RMC 0805
Power Rating	0.10W
Maximum Working Voltage	150V
Maximum Overload Voltage	300V
Temperature Range	-55°C +125°C
Ambient Temperature	70°C

Power Rating:

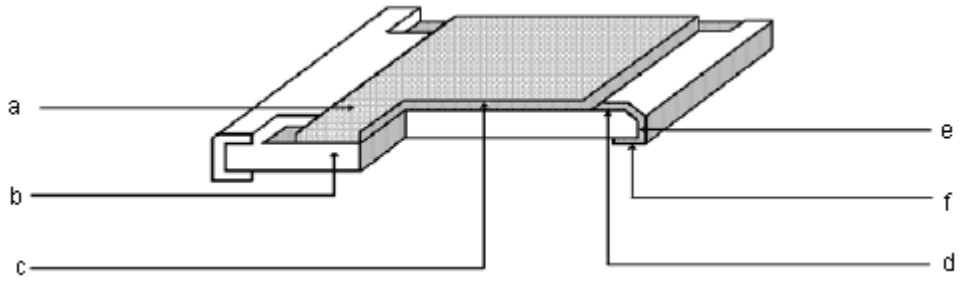
Resistors shall have a power rating based on continuous load operation at an ambient temperature of 70°C. For temperature in excess of 70°C, the load shall be derate.



Nominal Resistance

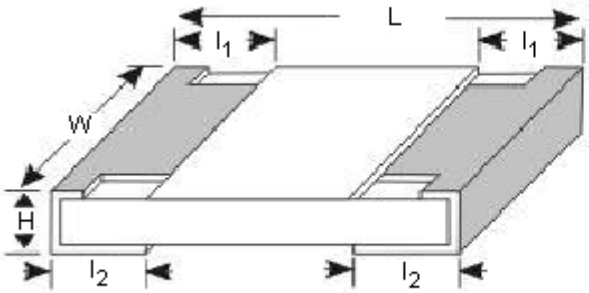
Effective figures of nominal resistance shall be in accordance with E-24, E-96 series for 1% and E-24 series for 2% and 5%.

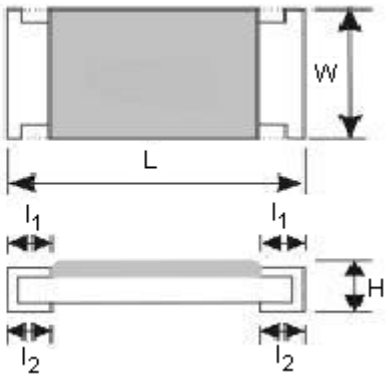
Construction:



a. Protective coating: Epoxy
b. Al_2O_3 high purity alumina substrate: Al 96 %
c. Resistive element: metal film
d. Termination (Inner): Ag/Pd
e. Termination (Between): Ni plating film
f. Termination (Outer): Sn/Pb plating film

Power Rating and Dimensions:





Dimensions : Millimetres

Dimensions

Type	L ±0.15	W +0.15 -0.10	H ±0.10	λ1 ±0.2	λ2 ±0.2
RMC 0805	2.00	1.25	0.55	0.40	0.40

Dimensions : Millimetres

Power Rating

Type	Power Rating at 70°C (W)	Tolerance %	Standard Series
RMC 0805	0.10	±1	E-24

Performance specifications

<table>
<tr><th>Characteristics</th><th>Limits</th><th>Test Methods (JIS C 5201-1)</th></tr>
<tr><td>Temperature coefficient</td><td>10Ω to 100Ω ±200 PPM/°C
101Ω to 1MΩ ±100 PPM/°C</td><td>Natural resistance change per temperature degree centigrade
R_2-R_1/ R_1 (t_2-t_1) x 10^6 (PPM/°C)

R_1 : Resistance value at room temperature (t_1)
R_2 : Resistance value at room temperature plus 100°C (t_2)</td></tr>
<tr><td>Short time overload</td><td>Resistance change rate is ±(1.0% + 0.1Ω) Maximum</td><td>Permanent resistance change after the application of a potential of 2.5 times RCWV for 5 seconds</td></tr>
<tr><td>Insulation resistance</td><td>1,000MΩ or more</td><td>Apply 500V dc between protective coating and termination for 1 minimum, then measure</td></tr>
<tr><td>Dielectric withstanding voltage</td><td>No evidence of flashover mechanical damage, arcing or insulation break down</td><td>Apply 500V AC between protective coating and termination for 1 minute</td></tr>
<tr><td>Terminal bending</td><td>±(1.0% + 0.05Ω) Maximum</td><td>Twist of test board : Y/X = 5/90mm for 10 seconds</td></tr>
<tr><td>Temperature cycling</td><td>±(0.5% + 0.05Ω) Maximum</td><td>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 temperature</td><td>10°C 15 mins</td></tr>
<tr><td>3</td><td>+125°C ±2°C</td><td>30 mins</td></tr>
<tr><td>4</td><td>Room temperature</td><td>10°C 15 mins</td></tr>
</table></td></tr>
<tr><td>Load life in humidity</td><td>Resistance change rate is ±(1.0% + 0.1Ω) Maximum</td><td>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 ±(1.0% + 0.05Ω) Maximum</td><td>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>
<tr><td>Soldering Heat</td><td>Electrical characteristics shall be satisfied. Without distinct deformation in appearance.</td><td>Solder bath method
Pre-heat : 100 to 105°C , 30 ±5 seconds
Temperature : 265 ± 3°C, 5 +1/-0 seconds

Reflow soldering method
Peak : 250 +5/-0°C
230°C or higher 30 ±10 seconds

Soldering iron method
Bit temperature : 350 ±10°C
Application time of soldering iron : 3 +1/-0 seconds</td></tr>
<tr><td>Solderability</td><td>95% coverage minimum</td><td>Test temperature of solder : 245 ±3°C
Dipping them solder : 2 to 3 seconds.</td></tr>
</table>

Resistance Preferred Value Range

E6	E12	E24	E96
10	10	10	10.0
			10.2
			10.5
			10.7
		11	11.0
			11.3
			11.5
			11.8
	12	12	12.1
			12.4
			12.7
		13	13.0
			13.3
			13.7
			14.0
			14.3
			14.7
15	15	15	15.0
			15.4
			15.8
		16	16.2
			16.5
			16.9
			17.4
			17.8
	18	18	18.2
			18.7
			19.1
			19.6
		20	20.0
			20.5
			21.0

E6	E12	E24	E96
			21.5
22	22	22	22.1
			22.6
			23.2
			23.7
		24	24.3
			24.9
			25.5
			26.1
			27.7
	27	27	27.4
			28.0
			28.7
			29.4
		30	30.1
			30.9
			31.6
			32.4
33	33	33	33.2
			34.0
			34.8
			35.7
		36	36.5
			37.4
			38.3
	39	39	39.2
			40.2
			41.2
			42.2
		43	43.2
			44.2
			45.3

E6	E12	E24	E96
			46.4
47	47	47	47.5
			48.7
			49.9
		51	51.1
			52.3
			53.6
			54.9
	56	56	56.2
			57.6
			59.0
			60.4
		62	61.9
			63.4
			64.9
			66.5
68	68	68	68.1
			69.8
			71.5
			73.2
		75	75.0
			76.8
			78.7
			80.6
	82	82	82.5
			84.5
			86.6
			88.7
		91	90.9
			93.1
			95.3
			97.6

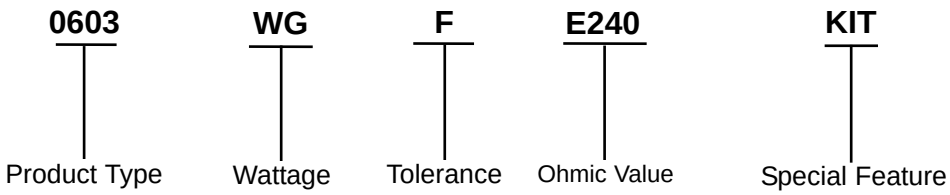
Above values in accordance with IEC Publication 63 (1963) and BS2488

Surface Mount Resistor Kits

Part Number Table

Description	Part Number
Resistor Kit, 0603, E24, 1%	0603WGFE240KIT
Resistor Kit, 0603, E6, 5%	0603WGJE060KIT
Resistor Kit, 0603, E12, 5%	0603WGJE120KIT
Resistor Kit, 0805, E24, 1%	0805WAFE240KIT
Resistor Kit, 0805, E12, 5%	0805WAJE120KIT
Resistor Kit, 0805, E24, 5%	0805WAJE240KIT
Resistor Kit, 1206, E24, 1%	1206W8FE240KIT
'Resistor Kit, 1206, E12, 5%	1206W8JE120KIT

Part Number Explanation:



Wattage : WG = 1/16W, WA = 1/10W and W8 = 1/8W.
Tolerance : F = ±1% and J = ±5%.
Ohmic Value : Where R = Ohms = Ω.
K = Kiloohms = KΩ.
M = Megaohms = MΩ.
And replaces the decimal point.
eg: 1R5 = 1.5Ω.
4K7 = 4.7KΩ.
6M8 = 6.8MΩ.
Special Feature : KIT = Chip Kit resistor.

Stocked Values

Tolerance	Wattage (W)	Preferred Value Range	Range Value
1%	0.063	E96	1R5 - 1M
1%	0.1	E24	1R5 - 1M
1%	0.125	E24	10R - 1M