

SPECIFICATION

COAT-INSULATED FIXED METAL FILM RESISTORS

"RM" series

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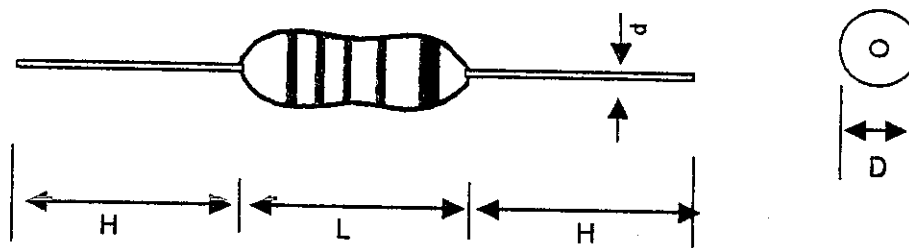
1. SCOPE

This specification shall be applied to the Metal Film Fixed Resistors "RM" Series.

2. TYPE DESIGNATION

RM	0204S	F	C	1002 (10K)	T52
Name of Type	Rating	Tolerance	T.C.R.	Nominal Resistance Value	Packaging

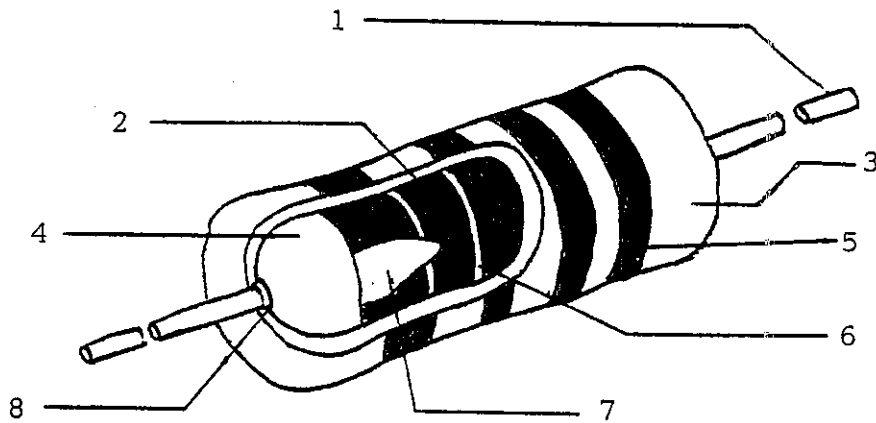
3. EXTERNAL SHAPE (DIMENSIONS)



unit : mm

Type	L	D	d(nominal)	H
RM 0204S	3.2 ± 0.2	1.7 ± 0.2	0.45	30 ± 3
RM 0207S	6.3 ± 0.5	2.3 ± 0.5	0.6	30 ± 3

4. STRUCTURE



- (1) SOLDER PLATED COPPER LEAD WIRE
- (2) METAL ALLOY FILM
- (3) EPOXY COATING
- (4) END CAP
- (5) COLOR CODE
- (6) SPRIAL TRIMMING
- (7) HIGH THERMAL CONDUCTIVE CERAMIC ROD
- (8) WELDED TERMINAL

5. RATING

Type	Rating	Max. Working Voltage	Max. Overload Voltage	Dielectric W. Voltage	T.C.R.	Res. Tol.	Res Range(Ω)
RM 0204S	0.4W	200V	400V	300V	± 50	$\pm 1\%$	10 - 1M
RM 0207S	0.6W	250V	500V	500V	± 50	$\pm 1\%$	10 - 1M

The maximum value of D.C. voltage or A.C. voltage (effective value) capable of being applied continuously to a resistor at the rated ambient temperature. Rated voltage shall be calculated from the following formula.

$$E = \sqrt{P \cdot R}$$

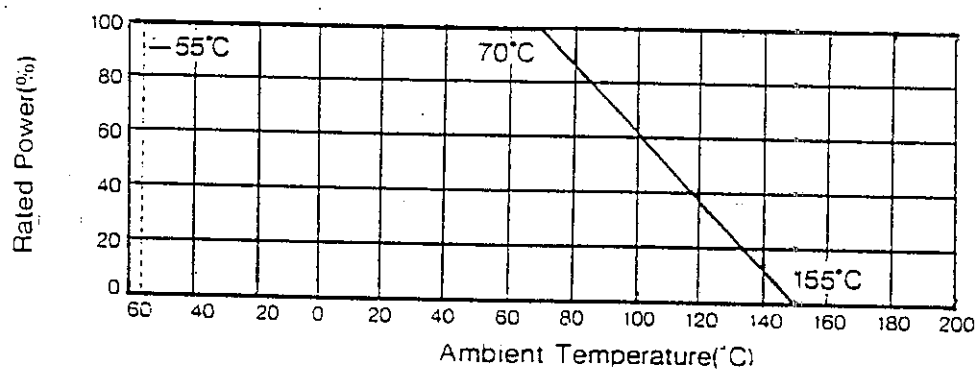
E = Rated Voltage (V)

P = Rated Power (W)

R = Nominal resistance (ohm)

The rated voltage is limited to the maximum working voltage.

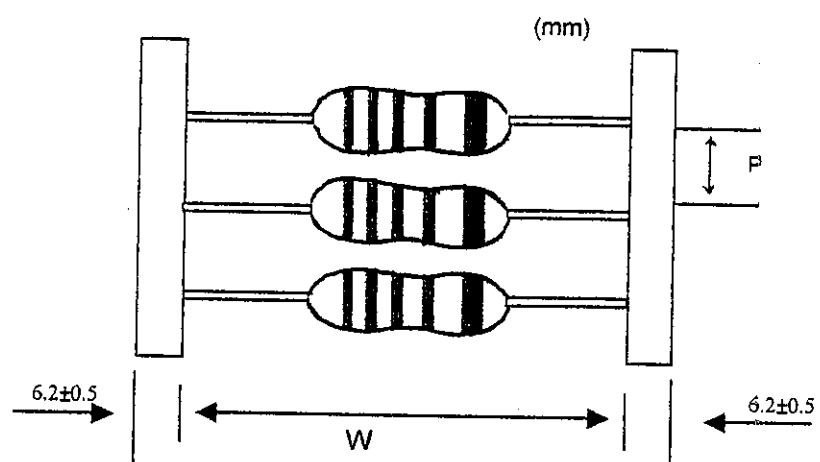
POWER DERATING CURVE



6. PERFORMANCE

Items	Characteristics	Test Method
Temperature Coefficient	$\leq \pm 50 \text{ ppm}/^{\circ}\text{C}$	Resistance value at room temperature and room temperature $+100^{\circ}\text{C}$.
Dielectric withstanding Voltage	No breakdown or flashover	Resistor shall be clamped in the trough of a 90° metallic V-Block and shall be tested at provided AC potential voltage for 1 minute . Test Voltage:Max Overload Voltage.
Insulation resistance	$10^4 \text{ M}\Omega \text{ min.}$	Resistors shall be clamped in the trough of a 90° metallic V-Block and shall be measured at DC 100V
Short time Overload	$\pm(0.5\% + 0.05\Omega)$ with no evidence of arcing ,burning, or charring	Room Temperature : $P = 6.25 \times P_n$ (RM 0207S) or $6.25 \times 0.25w$ (RM 0204S); (voltage not more than 2x limiting voltage) for 5 sec.
Resistance to Soldering heat	$\pm(0.75\% + 0.05\Omega)$ with no evidence of mechanical damage	Leads immersed, 6mm from the body in $350^{\circ}\text{C} \pm 10^{\circ}\text{C}$, solder for 3.0 ± 0.5 seconds.
Solderability	95% covered min. good tinning, no damage	Leads immersed 6mm from the body for 3 ± 0.5 seconds in a solder bath at $235 \pm 5^{\circ}\text{C}$.
Temperature cycling	$\pm(1.0\% + 0.05\Omega)$ with no evidence of mechanical damage	Continuous 5 cycles for duty cycle specified, -55°C to $+155^{\circ}\text{C}$.
Damp heat (steady state)	$\pm(1.5\% + 0.05\Omega)$	1,000 hours (1.5 hours ON, 0.5 hours OFF) Rated power, at 40°C ;90 to 95% RH.
Endurance	$\pm(1.5\% + 0.05\Omega)$	1,000 hours (1.5 hours ON,0.5 hours OFF) . Rated power at 70°C .

7. TAPING & PACKAGING DIMENSIONS



Type	P (± 0.3)	W (± 1.0)	Tape & Box
RM 0204S	5.0mm	26mm 52mm	5000 pcs
RM 0207S	5.0mm	26mm 52mm	5000 pcs