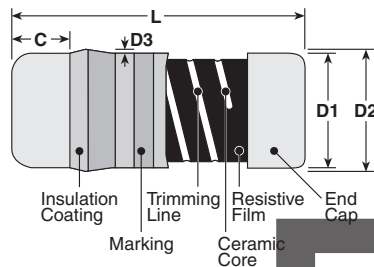


features

- Free direction for mounting due to cylindrical design
- High precision products (Resistance tolerance $\pm 0.1\%$ and T.C.R. $\pm 25 \times 10^{-6}/K$) available (RN41)
- The electrode strength is firm
- The noise characteristics is excellent
- Suitable for reflow, flow and iron solderings
- Products meet EU-RoHS requirements

current sense

dimensions and construction



Type (Inch/DIN Size Code)	Dimensions inches (mm)				
	L	C	D1	D2 (max.)	D3 (max.)
2A (0805/0102)	.079±.004 (2.0±0.1)	.012 (0.3 min.)	.049±.002 (1.25±0.05)	.053 (1.35)	.003 (0.07)
2D (1206/0203)	.126±.008 (3.2±0.2)	.02 (0.5 min.)	.061±.006 (1.55±0.15)	.069 (1.75)	.004 (0.1)

EOLO

ordering information

RM41	2D	T	TE	1R0	J	50*
Type	Size	Termination Material	Packaging	Nominal Resistance	Tolerance	T.C.R. (ppm/°C)
RN41 RM41	2A: 0.125W 2D: 0.2W	T: Sn	TE: 7" embossed plastic (2A - 3,000 pieces/reel) (2D - 2,000 pieces/reel)	±5%: 2 significant figures + 1 multiplier. "R" indicates decimal on values <10Ω ±1%: 3 significant figures + 1 multiplier. "R" indicates decimal on values <100Ω	C: ±0.25% D: ±0.5% F: ±1% J: ±5%	25: ±25 50: ±50 100: ±100 200: ±200

* T.C.R. noted for RN41 only

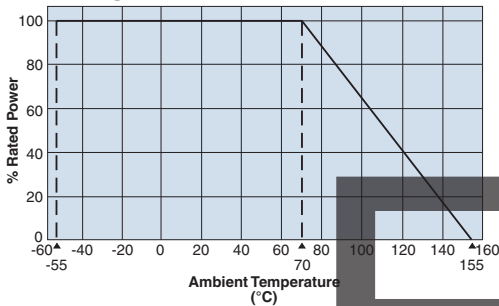
applications and ratings

Part Designation	Power Rating @ 70°C	Rated Ambient Temp.	T.C.R. (ppm/°C) Max.	Resistance Range		Max. Working Voltage	Max. Overload Voltage
				E-24, E-96 (F±1%)	E-24 (J±5%)		
RN412A	1/8W (.125W)	70°C	±100	100Ω-100kΩ	—	150V	200V
RN412D	1/5W (.2W)	70°C	±50	10Ω-604kΩ	—		300V
RM412D	1/5W (.2W)	70°C	±350	—	0.22Ω-8.2Ω (E-12)	—	—

Operating Temperature Range: -55°C to +155°C

environmental applications

Derating Curve



For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the derating curve.

Performance Characteristics

Parameter	Type	Requirement $\Delta R \pm (\%+0.05\Omega)$		Test Method
		Limit	Typical	
Resistance	RN41 RM41	Within specified tolerance	—	25°C
T.C.R.	RN41 RM41	Within specified T.C.R.	—	+25°C/-55°C and +25°C /+125°C
Overload (Short time)	RN41 RM41	±0.5%	±0.3%	Rated voltage x 2.5 for 5 seconds or Max. overload voltage, whichever is lower, for 5 seconds
Intermittent Overload	RN41	±1%: 2A, 2D	—	Rated voltage x 4 (RN41: 2Ax3) or Max. intermittent overload voltage, whichever is lower, 10,000 cycles, 2A:200V, 2D:300V
Resistance to Soldering Heat	RN41	±0.5%: RN 2A-2D	±0.3%: RN 2A-2D	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	RN41 RM41	±0.5%: 2A-2D ±1%	±0.3%: 2A-2D ±0.75%	-55°C (30 minutes), +125°C (30 minutes), 5 cycles
Moisture Resistance	RN41 RM41	±1%: 2D ±3%: 2A ±5%	±0.75%: 2D ±1.5%: 2A ±3%	40°C ± 2°C, 90 ~ 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	RN41 RM41	±1%: 2D ±3%: 2A ±5%	±0.5%: 2D ±1.5%: 2A ±3%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	RN41	±1%	±0.75%	155°C, 2 hours

Not Recommended for New Design: Sizes 2A, 2D, 2E and 2H

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

7/15/22