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DIRECT

Electronics Tech.

(RDM)
Low Noise Carbon MELF Resistors

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Product Introduction

Direct Carbon Film MELF (RDM) is the cost-effective option.

Features :

- Coating color: Yellow; Marking: Color code (3 color band).
- Free direction for mounting due to cylindrical design. Electrodes strength is higher than flat chip resistors.
- Specially plated electrodes for high solderability. Lower current noise than flat chip resistors. Lead (Pb)-free and RoHS compliant.
- Speciality carbon film technology. DIN: 0204, 0207, 0309.

Applications :

- Home appliances,
- Electrical Equipment,
- Consumer electronics.

Commercial grade low power carbon film resistors offer high quality performance for applications that do not require surge protection or precision tolerances.

Providing design engineers with an economical power resistor with high quality performance, Direct Electronics now offers commercial grade low power carbon film resistors. Designated the RDM Series, the conformal coated resistors offer high quality performance for applications that do not require surge protection or precision tolerances.

The commercial grade carbon Melf resistors are available in flame retardant packaging and have ideal specifications for consumer electronic or electrical devices. The RDM Series resistors offer a wide resistance range for devices with power ratings below 1W, delivering high quality performance for general purpose applications.

The RDM Series resistors are ideal for general use applications including electrical equipment, small appliances and consumer electronics, such as televisions and other high-volume products.

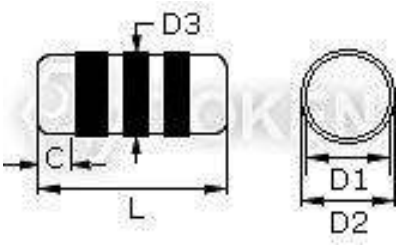
The RDM Series film resistors feature power ratings from 0.125 to 1W, with a resistance range from 1 Ω to 1M Ω. Standard tolerances for the devices are to ±2% and ±5% with TCRs as low as ±300ppm/℃ for values of 1K Ω or less. Maximum working voltage ranges from 200V to 350V.

Contact our sales representative with your specific needs. Or you can link to Direct official website "Melf Resistors" for more information.

Dimensions

Dimensions (Unit: mm) Carbon Film (RDM)

Type		RDM73S	RDM73P	RDM74S	RDM74P	RDM16M	RDM17S	RDM17P
DIN-44061 type		0204	0204	0207	0207	0207	0309	0309
Dimensions (Unit: mm)	L	3.5±0.2	3.5±0.2	5.9±0.2	5.9±0.2	5.9±0.2	8.5±0.2	8.5±0.2
	C (Min.)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	D1	1.40±0.15	1.40±0.15	2.2±0.1	2.2±0.1	2.2±0.1	3.2±0.2	3.2±0.2
	D2 (Max.)	1.55	1.55	2.4	2.4	2.4	3.4	3.4
	D3 (Max.)	1.25	1.25	2.1	2.1	2.1	3.0	3.0



Carbon Film Low Noise MELF (RDM) Dimensions

Characteristics

Characteristics Lower Current Noise (RDM)

Type		RDM73S	RDM73P	RDM74S	RDM74P	RDM16M	RDM17S	RDM17P
DIN-44061 type		0204	0204	0207	0207	0207	0309	0309
Power Rating (W)		1/8	1/4	1/4	1/2	1	1/2	1
Resistance Range (Ω) E24		1 ~ 1M						
Resistance Tolerance		G: ±2% J: ±5%						
Max. Working Voltage (V)		200	250	300	300	350	350	350
Max. Overload Voltage (V)		400	500	600	600	700	700	700
Packaging & Qty (pcs)	Case	180K	180K	96K	96K	96K	50K	50K
	Reel	3K	3K	2K	2K	2K	2.5K	2.5K

Item	Characteristics					Test Method
Temp. Coefficient (PPM/℃)	TCR / Type	0 ~ -350	0 ~ -600	0 ~ -1000	0 ~ -1500	JIS-C(5202-5.2)
	>1/4W	<10K	11K~115K	160K~2M2	-	
	1/8W	<1K	1K1~47K	51K~470K	510K~1M	
Short Time Overload	± (1.0% + 0.05Ω)					JIS-C(5202-5.5)
Intermittent	± (1.0% + 0.05Ω)					JIS-C(5202-5.8)
Resistance to Soldering	± (1.0% + 0.05Ω)					JIS-C(5202-6.4)
Solderability	95% Coverage min					JIS-C(5202-6.5)
Moisture Resistance	± (5.0% + 0.1Ω)					JIS-C(5202-7.9)
Load Life	± (3.0% + 0.1Ω)					JIS-C(5202-7.10)

Order Codes

Order Codes Carbon MELF (RDM)

RDM74P	1R		J		TR	
Part Number	Resistance Value (Ω)		Resistance Tolerance (%)		Package	
RDM73S	1R2	1.2Ω	G	±2%	P	Bulk
RDM73P	12R	12Ω	J	±5%	TR	Taping Reel
RDM74S	120R	120Ω				
RDM74P	12K	12KΩ				
RDM16M						
RDM17S						
RDM17P						

General Information

Direct MELF Offers Designer a Greater Choice

Direct Electronics is now offering the complete range of MELF products, comprising DIN-0411, DIN-0309, DIN-0207, DIN-0204 and DIN-0102. This high stability, close-tolerance MELF resistors have a footprint very close to comparable chip resistors but maintain their tolerance and deliver higher stability over a wider temperature range.

Where applications require even tighter tolerance, Direct offer Ultra Precision range in the RJM package, with values from 0.1Ω ~ 22MΩ, tolerance from ±5% down to as low as ±0.05% and TC from ±50ppm/℃ to ±5ppm/℃.

For high pulse load and high-frequency applications, Direct Electronics offer specialized MELF resistor. The high pulse load resistors are metal glaze film RGM, available in values from 50KΩ ~ 22MΩ and ±0.5% precision tolerance, for 0.125 W ~ 3W applications.

High-frequency RFM resistors are available for RF microwave applications where impedance change due to the parasitic inductance of regular resistors is not acceptable.

Chip Resistor Alternatives

In very low resistance values, between 0.1Ω and 475Ω, not usually offered by conventional chip resistors, these are available in RJM72P 0102, RJM73P 0204, RJM74P 0207 and standard RJM18M 0411 MELF precision packages.

All MELF-type resistors are available on blister tape for automated placement and maintain their high stability, high precision characteristics when exposed to soldering temperatures and operating stresses including moisture, vibration, humidity and temperature variation within the specified range.

This makes them suitable for a wide range of applications, from laboratory and prototyping work to installation in hostile environments such as airframe or under-bonnet areas, exposed parts of vehicles, or other places where electronic sensing and controls must be installed.