TOKEN

MELF RESISTORS

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Product Index

Information

MELF

Notice: Specification Changed or Version Updated will be posted at irregular intervals.
All Updated and Final Specifications, Please Confirm with TOKEN ELECTRONICS REPRESENITIVES.

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Melf Resistors General Infornation

Token MELF Offers Designer a Greater Choice

Token Electronics is now offering the complete range of MELF products, comprising DIN-0411, DIN-0309, DIN-0207, DIN-0204 and DIN-0102. These 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.
Download Entire MELF Resistors Catalogue in PDF file (472KB).

Where applications require even tighter tolerance, Token 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/°C to ±5ppm/°C.

For high pulse load and high-frequency applications, Token Electonics offer specialised MELF resistors. 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.

Melf Resistors Terminology Glossary

Derating Curve

The curve that expresses the relation between the ambient temperature and the maximum value of continuously loadable power at its temperature, which is generally expressed as a percentage.

Dielectric Withstanding Voltage

The rated voltage that can be applied to a designated point between the resistive element and the outer coating, or the resistive element and the mounting surface, without causing dielectric breakdown.

Maximum Overload Voltage

The maximum value of voltage capable of being applied to resistors for a short period of time in the overload test. Typically the applied voltage in the short time overload test is 2.5 times larger than the rated voltage. However, it should not exceed the maximum overload voltage.

Maximum Working Voltage

The maximum value of DC voltage or AC voltage (rms) capable of being applied continuously to resistors or element. However, the maximum value of the applicable voltage is the rated voltage at the critical resistance value or lower.

Power Rating

Power ratings are based on physical size, allowable change in resistance over life, thermal conductivity of materials, insulating and resistive materials, and ambient operating conditions. For best results, employ the largest physical size resistors at less than their maximum rated temperature and power.

Rated Ambient Temperature

The maximum ambient temperature at which resistors are capable of being used continuously with the prescribed rated power. The rated ambient temperature refers to the temperature around the resistors inside the equipment, not to the air temperature outside the equipment.

Rated Power

The maximum amount of power that can be continuously loaded to a resistor at a rated ambient temperature. Network and array products have both rated power per package as well as per element.

Rated Voltage

The maximum value of DC voltage or AC voltage (rms) capable of being applied continuously to resistors at the rated ambient temperature.

Resistor Tolerance

Resistor tolerance is expressed as the deviation from nominal value in percent and is measured at 25 °C only with no appreciable power applied. A resistor's value will also change with applied voltage (VCR) and temperature (TCR). For networks, absolute resistor tolerance refers to the overall tolerance of the network. Ratio tolerance refers to the relationship of each resistor to the others in the package.

Temperature Coefficient of Resistance (TCR)

TCR is expressed as the change in resistance in ppm (0.0001 %) with each degree Celsius of change in temperature. TCR is typically referenced at +25 °C and changes as the temperature increases (or decreases). A resistor with a TCR of 100 ppm/°C will change 0.1 % over a 10 °C change and 1 % over a 100 °C change. In the context of a resistor network, the TCR value is called the absoluSte TCR in that it defines the TCR of a specific resistor element. The term TCR tracking refers to the difference in TCR between each specific resistor in a network.

Rated Voltage

Melf is the abbreviation of "Metal Electrode Leadless Face" and is a cylindrically shaped resistor designed for surface mounting.Acronym: Leadless Resistor; Cylindrical Resistor; Metal Electrode Leadless Face device; Surface Mounted Leadless Component

High Frequency Non-Inductance Melf Resistors

Non-Inductance MELF Offer Greater Choice for High Frequency Applications

Preview

The RFM speciality series of high frequency non-inductance MELF resistor from Token Electronics has been extended to offer more than GHz operation, making the devices more suitable for high frequency RF applications.

They are the perfect choice in high frequency circuit designs where the parasitic inductance of regular, helical trimmed resistors can not be accepted, but where also pulse energies apply. Typical applications are in the fields of telecommunication equipment and industrial electronics.

These high stability, non-inductance MELF resistors have a footprint very close to comparable chip resistors but maintain their tolerance and deliver higher stability over a wider temperature range. Sizes range from 5.7 x 2.1mm for the RFM74 MELF-0207, through 3.45 x 1.3mm for the RFM73 MELF-0204 down to 2.2 x 1.3mm for the RFM72 MELF-0102.

Production is strictly controlled and follows and extensive set of instructions established for reproducibility. The groove on the metal alloy film of high grade ceramic rod is special designed to achieve non inductance. The resistor elements are covered by a protective coating designed for mechanical, electrical and climatic protection.

The terminations are covered with a final pure tin plating for keeping perfect solderability. Four or five color code rings designate the resistance value and tolerance in accordance with IEC 60062.

Token's RFM MELF standard series can be a replacement for Vishay, IRC, EBG, KAO, Panasonic Precision Devices with more competitive price and short lead time. Contact us with your specific needs.

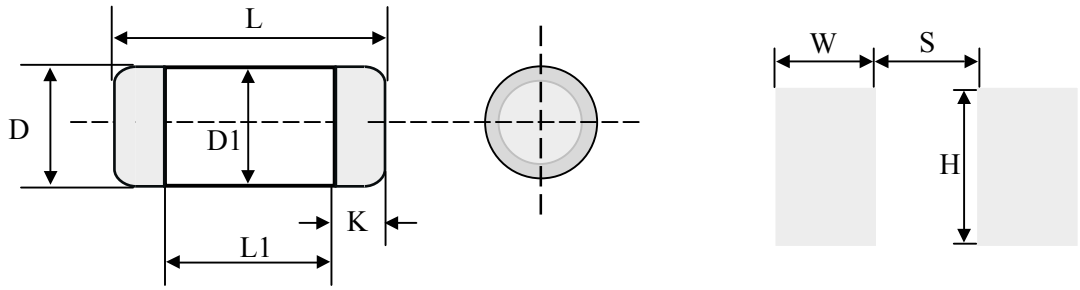
Features

- Lead (Pb)-free and RoHS compliant.
- Ower dissipation rating at 70°C up to 0.75W.
- Low-inductance non-helical trimmed product.
- Special metal film technology, DIN: 0102, 0204, 0207.
- Tolerance range: ±0.5% to ±5.0%; Resistance range: 25Ω to 200Ω.
- Suitable for more than GHz operation; Excellent overall stability: Class 0.5.

Applications :

- Medical Equipment.
- Industrial electronics.
- Automatic Equipment Controller.
- Communication Device, Cell phone, GPS, PDA.
- HF and pulse loading applications.
- Testing & Measurement Equipment.
- Consumer Product, Printer Equipment.

Dimensions & Recommended Soldering Bath Dimensions



Type		RFM72	RFM73	RFM74	RFM75
Metric sizes		DIN: 0102	DIN: 0204	DIN: 0207	DIN: 0207
Dimension (mm)	L±0.2	2.2	3.45	5.7	6.0
	L1±0.2	1.2	1.6	3.0	3.3
	D±0.2	1.3	1.3	2.1	2.1
	K±0.1	0.4	0.8 min	1.2 min	1.2 min
	D1±0.1	D+0/D-0.15	D+0/D-0.25	D+0/D-0.3	D+0/D-0.3
Soldering bath (recommended) (mm)	S	1.0	1.6	2.6	2.8
	W	2.0	2.0	2.5	2.5
	H	2.0	2.5	2.5	2.5

Characteristics

Type	RFM72	RFM73	RFM74	RFM75
Metric sizes	DIN: 0102	DIN: 0204	DIN: 0207	DIN: 0207
Resistance range	25Ω ~ 200Ω			
Operating Temperature range	-55°C ~ 125°C			
Resistance Tolerance (%)	D(±0.5); F(±1.0); J(±5.0)			
Temperature coefficient (PPM/°C)	C1(±100); C2(±50); C3(±25); C5(±15); C6(±10)			
Rated dissipation (W) P_{70}	0.125	0.25	0.5	0.75
Operating mode	standard	standard	standard	power
Climatic category (LCT/UCT/days)	55/125/56	55/125/56	55/155/56	55/155/56
Endurance, Max, resistance change at P70, ΔR/R max., after 1000h	≤0.5% for Tol.=±1% & ≤1% for Tol.=±5%			
Derating	standard type linear from 70°C to 125°C			
Insulation voltage	500V			
Insulation resistance	>1GΩ			

How to Order

RFM73 ❶ | 100R ❷ | F ❸ | C3 ❹ | TR ❺

❶ Product type: RFM72, RFM73,RFM74, RFM75

❷ Resistance Value (Ω):

Code	Resistance Value
100R	100Ω

❸ Resistance Tolerance (%)

Code	Resistance Tolerance (%)
D	±0.5
F	±1.0
J	±5.0

❹ Temperature coefficient (PPM/°C)

Code	Temperature coefficient (PPM/°C)
C1	±100 ppm/°C
C2	±50 ppm/°C
C3	±25 ppm/°C
C5	±15 ppm/°C
C6	±10 ppm/°C

❺ Packaging

Codes	Packaging
TR	Taping Reel
P	Bulk

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Metal Film Precision Melf Resistors

Metal-Film (MELF RJM) Resistors Offer More Design Options

Preview

RJM professional thin film MELF resistors (Cylindrical Resistors) are the perfect choice for most fields of modern professional electronics where reliability and stability is of major concern.

RJM resistors combine the proven reliability of professional MELF products with a most advanced level of precision and stability first achieved with axial thin film high precision resistors.

This unique combination makes the product perfectly suited for all applications with outstanding requirements towards reliable precision and stability. The typical applications in the fields of telecommunication, automotive and medical equipment reflect the outstanding level of proven reliability.

RJM MELF equate Vishay, Ohmite, Caddock, IRC, EBG, KAO, Panasonic Precision Devices with more competitive price and fast delivery.
Contact us with your specific needs.

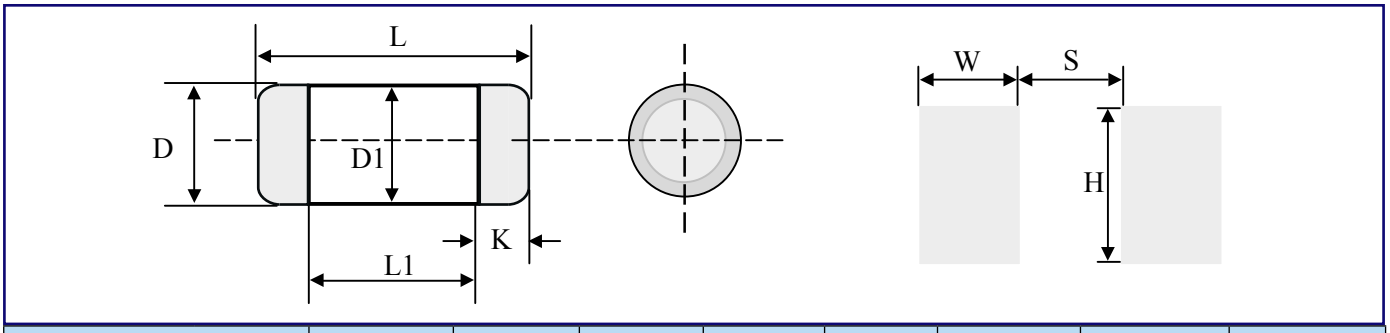
Applications :

- Telecom.
- Medical electronics.
- Test and measurement.
- Space and aircraft electronics.
- Industrial process control systems.
- Measuring and calibration equipment.

Features

- DIN: 0102, 0204, 0207, 0411.
- Pure Sn termination on Ni barrier layer.
- Very high ratio of performance to price.
- High precision tolerance down to ± 0.05 %.
- Force fitted steel caps, tin plated on nickel barrier.
- Superior overall stability, most advanced thin film technology.
- TCR down to ± 5ppm/°C, wide resistance range: 0.1Ω to 22MΩ.
- ompatible with lead (Pb)-free and lead containing soldering

Dimensions & Recommended Soldering Bath Dimensions



Type		RJM72P	RJM73S	RJM73P	RJM74S	RJM74P	RJM16M	RJM17M	RJM18M
Metric type		DIN: 0102	DIN: 0204		DIN: 0207			DIN: 0411	
Dimension (mm)	L(±0.3)	2.2	3.5		5.7		6.0	8.7	11.8
	L1(±0.3)	1.0	1.6		2.9		3.3	4.9	8.1
	D(±0.3)	1.3	1.3		2.1		2.1	3.1	3.6
	K(±0.2)	0.4	0.8		1.3		1.3	1.8	1.8
	D1(±0.1)	D+0/D-0.15	D+0/D-0.25		D+0/D-0.5		D+0/D-0.5	D+0/D-0.5	D+0/D-0.5
Soldering bath (recommended) (mm)	S	1.0	1.6		2.6		2.8	5.6	8.2
	W	2.0	2.5		2.5		2.8	3.2	4.0
	H	2.0	2.5		2.5		2.8	3.8	4.5

Characteristics

Type	RJM72P	RJM73S	RJM73P	RJM74S	RJM74P	RJM16M	RJM17M	RJM18M
Metric type	DIN: 0102	DIN: 0204		DIN: 0207			DIN: 0411	
Rated dissipation P_{70}	0.125W	0.125W	0.25W	0.25W	0.50W	1.0W	2.0W	3.0W
Resistance range (Ω)	10 ~ 1M	0.1 ~ 10M		0.1 ~ 22M			0.1 ~ 22M	
Resistance tolerance (%)	J (±5); F (±1); D (±0.5); C (±0.25); B (±0.10); A5 (±0.05)							
Temperature coefficient(ppm/°C)	C1 (±100); C2 (±50); C3 (±25); C5(±15); C6 (±10); C7 (±5)							
Climatic category(LCT/UCT/days)	55 / 125 / 56							
Operating voltage Umax	200V	200V	250V	250V	300V	350V	400V	450V
Temperature range	-55°C to 125°C							
Insulation voltage (V)	300	300	300	300	600	700	800	900
Insulation resistance	>1GΩ							

Notice: Resistance out of range, tolerance and temperature coefficient match are under request. RJM72 is still in trial production.

How to Order

RJM74P ❶ 10R ❷ D ❸ C6 ❹ P ❺

❶ Product type: RJM72P, RJM73S, RJM73P, RJM74S, RJM74P, RJM16M, RJM17M, RJM18M

❷ Resistance Value :

Code	Resistance Value
0R1	0.1Ω
10R	10Ω
100R	100Ω
1K	1KΩ
10K	10KΩ
100K	100KΩ
1M	1MΩ
10M	10MΩ

❸ Resistance Tolerance (%)

Code	Resistance Tolerance
J	±5%
F	±1%
D	±0.5%
C	±0.25%
B	±0.10%
A5	±0.05%

❹ Temperature coefficient (ppm/°C)

Code	Temperature coefficient
C1	±100 ppm/°C
C2	±50 ppm/°C
C3	±25 ppm/°C
C5	±15 ppm/°C
C6	±10 ppm/°C
C7	±5 ppm/°C

❺ Packaging

Code	Packaging
TR	Taping Reel
P	Bulk

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Metal Glaze Film Pulse Load Melf Resistors

Pulse Load MELF (RGM) Provides Maximum Thermal Compliance

Preview

Providing design engineers with a family of resistors designed specifically for surge and pulse applications, Token Electronics' family of power MELF resistors feature extended performance capability with ratings up to 3W.

Consisting of the RGM16M, RGM17M, RGM18M, and RGM74 Series resistors, the devices in the power MELF family all use Token's Metal Glaze resistive element on ceramic substrates. The RGM Anti-Surge Melf Series feature metal caps fitted on the terminals of the cylindrical resistor body to givethe devices exceptional thermal compliance.

The resistors in the power MELF family provide excellent thermal compliance as well as a variety of surge capabilities. The rugged RGM18M Series resistors are rated up to 3W and provide maximum thermal compliance, while the RGM74 Series resistors offer as much as three times the surge rating of standard resistors, which equates to up to 10 times the surge rating of similar-sized flat thick film chip resistors. The range of capabilities allows customers to select the best device to provide stable performance in harsh environment applications.

The Metal Glaze thick film element on the RGM Series devices is fired at 1000°C to a solid ceramic substrate. The resistors feature power ratings of 0.5W, 1W, 2W and 3W at 70°C. Resistance values range from 10kΩ ~ 1GΩ with standard tolerance to ±0.5%, maximum voltage of up to 6000V and TCRs ±100ppm/°C. Maximum operating temperature for the resistors is +125°C.

The RGM MELF Series is a perfect fit when an anti-surge resistor is required. Other major applications of RGM resistors are: AC mains protection, isolation between primary/secondary circuits in TVs, voltage dividers, ignition/switching circuit in electronic ballasts.

Token will also produce MELF devices outside these specifications to meet customer requirements. Contact us with your specific needs.

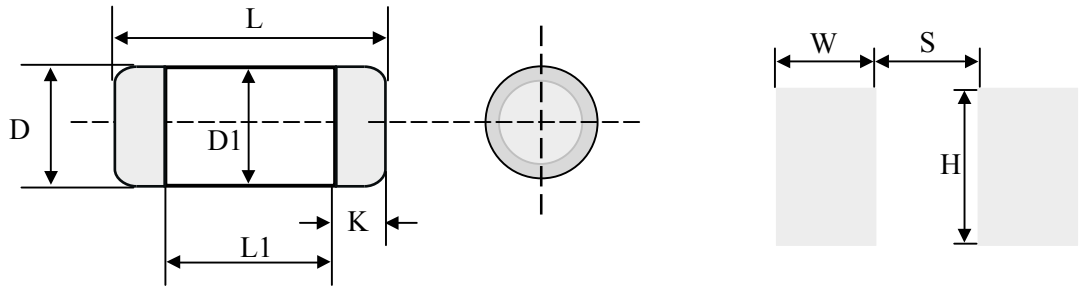
Applications :

- Lead (Pb)-free and RoHS compliant.
- Speciality metal glaze film technology.
- Power dissipation rating at 70°C up to 3W.
- Combine high resistance range with high voltage.
- Temperature coefficient: ±100ppm/°C, ±200ppm/°C.
- High pulse handling capability. DIN: 0207,0309, 0411
- Tolerance range: ±0.5% to ±10%; Resistance range: 10KΩ ~ 1GΩ.

Applications :

- Electronic Ballast: Ignition, Switching Spark Circuit.
- Home Appliances: Control Module for Surge Protection.
- Test & Measurement: Voltage Divider and Surge Protection.
- CTV, CRT Monitor: Isolation Resistor, Mains Protection, Discharge Path Resistor and Power Factor Control (PFC). Power Supply (SMPS): Voltage Divider, Isolation, PFC control, Mains Protection and Discharge Path Resistor.

Dimensions & Recommended Soldering Bath Dimensions



Type		RGM74	RGM16M	RGM17M	RGM18M
DIN - 44061 type		DIN:0207	DIN:0207	DIN:0309	DIN:0411
Dimension Max. (mm) (±0.3 mm)	L	5.7	6.1	8.7	11
	L1	3.5	3.9	6.2	8.8
	D	2.1	2.1	3.1	3.9
	K	0.6	0.8	1.0	1.3
	D1	D+0/D-0.5	D+0/D-0.5	D+0/D-0.5	D+0/D-0.5
Recommended Soldering Bath Dimension (Unit: mm)	S	3.3	3.5	5.6	7.2
	W	3.2	4.0	5.0	7.0
	H	3.2	4.5	5.0	5.0

Characteristics

Type	RGM74	RGM16M	RGM17M	RGM18M
DIN - 44061 type	DIN: 0207	DIN: 0207	DIN: 0309	DIN: 0411
Resistance range (Ω)	10k ~ 1G	10k ~ 1G	10k ~ 1G	10k ~ 1G
Resistance Tolerance	D (±0.5%); F (±1%); J (±5.0%); K (±10%)			
Temperature coefficient	± 100 ppm/°C; ± 200 ppm/°C			
Rated dissipation (W) P_{70}	0.50	1.0	2.0	3.0
Operating voltage (V) *Umax*	1600	1600	2000	3000
Short time over load voltage (V)	3200	3200	4000	6000
Operating Temperature range	-55°C ~ 125°C			
Endurance, Max, resistance change at P_{70} ΔR/R max., after 1000h	10k Ω ~ 1M Ω	10k Ω ~ 1M Ω	10k Ω ~ 1M Ω	10k Ω ~ 1M Ω
	≤1.50%			
Insulation voltage	>500V			
Insulation resistance	>1GΩ			

How to Order

RGM16M ❶ 510K ❷ J ❸ TR ❹

❶ Product type: RGM74, RGM16M, RGM17M, RGM18M

❷ Resistance Value:

Code	Resistance Value
51K	51KΩ
510K	510KΩ
5M1	5.1MΩ
51M	51MΩ
510M	510MΩ

❸ Resistance Tolerance (%)

Code	Resistance Tolerance
D	±0.5%
F	±1%
J	±5.0%
K	±10%

❹ Packaging

Code	Packaging
TR	Taping Reel
P	Bulk

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Carbon Film Melf Resistors

Token Carbon Film MELF (RDM) is The Cost-Effective Option

Preview

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, Token Electronics now offers commercial grade low power carbon film resistors. Designated the RDM Series, the conformally 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/°C for values of 1K Ω or less. Maximum working voltage ranges from 200V to 350V.

Contact our sales representative with your specific needs.

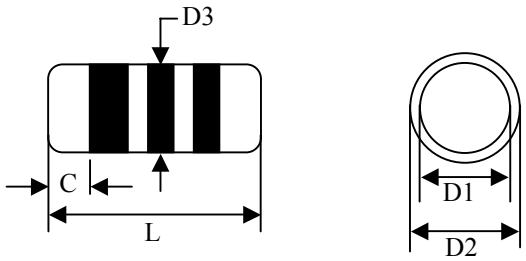
Applications :

- Speciality carbon film technology. DIN: 0204, 0207, 0309.
- 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.

Applications :

- Home appliances, Electrical Equipment, Consumer electronics.

Dimensions & Recommended Soldering Bath Dimensions



Type		RDM73S	RDM73P	RDM74S	RDM74P	RDM16M	RDM17S	RDM17P
DIN-44061 type		0204	0204	0207	0207	0207	0309	0309
Dimensions (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

Characteristics

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/°C)	Type \ TCR	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)

How to Order

RDM74P ❶ 1R ❷ J ❸ TR ❹

❶ Product type: RDM73S, RDM73P, RDM74S, RDM74P, RDM16M, RDM17S, RDM17P

❷ Resistance Value:

Code	Resistance Value
1R2	1.2Ω
12R	12Ω
120R	120Ω
12K	12KΩ

❸ Resistance Tolerance (%)

Code	Resistance Tolerance
G	±2%
J	±5%

❹ Packaging

Code	Packaging
T	Taping Reel
P	Bulk

Back to 1st Page - Carbon Film Melf Resistors(RDM)

High Voltage Ceramic Resistors

Enhanced Performance for High Voltage Applications - Ignition Non-Inductive (RMCA, RMCB)

Preview

The RMCA, RMCB Series MELF type of fixed ceramic resistors from Token Electronics offers automotive designers a compact solution for applications involving high voltages, surges, high peak power, or high-energy pulses. They offer enhanced performance in R-C snubber circuits, high voltage power supplies, and inrush limiters.

Token's RMCA, RMCB series now offers the industry a direct replacement carbon composition resistor based on a bulk resistive element comprising carbon in a ceramic filler. Due to the need for higher peak voltages, the RMCA, RMCB range is perfect for vehicle ignition system applications.

The RMCA, RMCB Series conform to RoHS compliant and lead free. For customed designs, tighter tolerances, non-standard technical requirements, or custom special applications, please contact our sales for more information.

Ceramic Composition Resistor Construction :

- Bulk ceramic resistors that consists of a clay, alumina, and ceramic filler that has been blended and pressurized into a resistive core and then covered with a molded outer insulating core.

Replacement Carbon-Composition Resistors :

- Design requirements for custom sizes, surface mount, or special footprints can be met easily.
- In cases where several carbon-composition resistors have been used together in an array to achieve a particular rating, they have been replaced with a single bulk ceramic resistor, frequently at a lower installed cost.

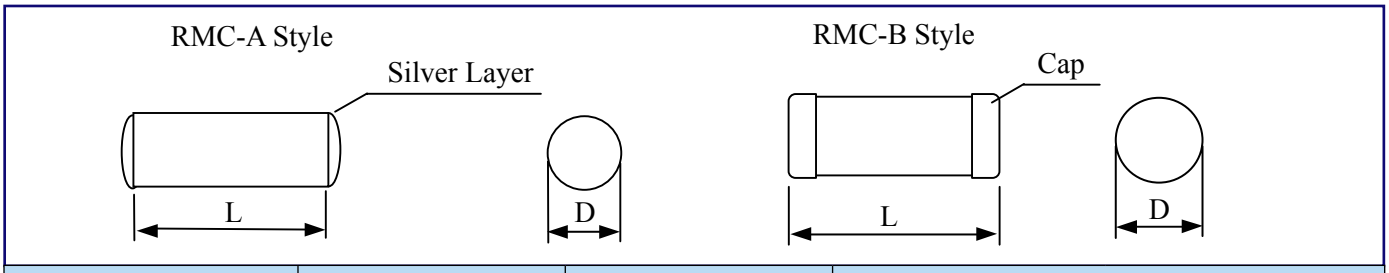
Features

- Operating Temperature -40°C ~ 155°C.
- Resistance Tolerance K(±10%), M(±20%).
- Typical resistance range 470 ohm ~ 100 Kohm.
- Replaces 1 and 2 watt carbon composition resistors.
- Suitable for noise suppressor of engine ignition system.
- High peak power, Reliable with non-disconnection failure.
- Rated Wattage up 5W, meets high energy density demands.

Applications

- Inrush limiters
- R-C snubber circuits
- Vehicle ignition system
- High voltage power supplies

General Specifications (Unit: mm)



Model	Style	Rated Wattage	Dimensions (mm)	
			L	D
RMC	A	1	7 ± 1.5	4.0 ± 0.4
			9 ± 1.5	4.0 ± 0.4
			10 ± 1.5	4.0 ± 0.4
	B		11 ± 1.5	4.6 ± 0.5
RMC	A	2	18 ± 1.5	4.0 ± 0.4
	B		19 ± 1.5	4.6 ± 0.5
RMC	A	3	24 ± 2.0	4.0 ± 0.4
	B		25 ± 2.0	4.6 ± 0.5
RMC	A	5	24 ± 2.0	7.0 ± 0.5
	B		25 ± 2.0	7.6 ± 0.5

Electrical Characterisics

Item		RMCA, RMCB			
Power Rating at 25°C (W)		1	2	3	5
Operating Temp. Range (°C)		-40 ~ 155			
Resistance Tolerance		K(±10%), M(±20%)			
Resistance Range (Ω)		470 ~ 33K	1K ~ 56K	1K ~ 100K	470 ~ 33K
Max. Working Voltage (V)		300	350	400	500
T.C.R (PPM/°C)	25°C~ 40°C	-750 ~ 3300	-750 ~ 3300	-750 ~ 3300	-750 ~ 3300
	25°C~155°C	-750 ~ 2600	-750 ~ 2600	-750 ~ 2600	-750 ~ 2600
Max. Pulse Voltage (KV)		8	15	20	25
Moisture Resistance (%)		10	10	10	10

Note: Non-Inductive Performance:

1. Chemically inert and thermally stable, the resistors are inherently non-inductive because of their bulk ceramic construction, which allows energy and power to be uniformly distributed through the entire ceramic resistor body with no film or wire to fail.
2. The bulk ceramic material also allows simple efficient resistor designs that enable the designer to minimize the resistor package size while providing the required performance and reliability.

How to Order

RMC ❶ 2W ❷ a ❸ 510R ❹ M ❺

❶ Part Number: RMC

❷ Rated Power (W): 1W, 2W, 3W, 5W

❸ Style: a Style, b Style

❹ Resistance Value (Ω)

Code	Resistance Value (Ω)
510R	510Ω
5K1	5.1KΩ
51K	51KΩ
68K	68KΩ

❺ Resistance Tolerance

Code	Resistance Tolerance
K	±10%
M	±20%

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