Vishay BCcomponents



Professional Thin Film Leaded Resistors

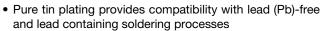


DESCRIPTION

A homogeneous film of metal alloy is deposited on a high grade ceramic body. After a helical groove has been cut in the resistive layer, tinned connecting wires of electrolytic copper are welded to the end-caps. The resistors are coated with lacquer which provides electrical, mechanical, and climatic protection. Four or five color code rings designate the resistance value and tolerance according to IEC 60062. Suitable replacements for MRS16 and MRS25 are MBA/SMA 0204 and MBB/SMA 0207 professional.

FEATURES

- Technology: Metal film
- Professional resistors in small outlines
- Low noise
- Lead (Pb)-free solder contacts



• Compatible to RoHS Directive 2002/95/EC



• All general purpose applications

TECHNICAL SPECIFICATIONS	1		
DESCRIPTION	UNIT	MRS16	MRS25
Resistance Range	Ω	4.99 to 1M	1 to 10M
Resistance Tolerance	%	± 1	± 1
Resistance Series		E24, E96	E24, E96
Rated Dissipation, P ₇₀	W	0.4	0.6
Thermal Resistance (Rth)	K/W	170	150
Temperature Coefficient	ppm/K	± 50	± 50
Operating Voltage, U _{max.} AC/DC	V	200	350
Basic Specifications		IEC 60 115-1	IEC 60 115-1
Climatic Category (IEC 60068-1)		55/155/56	55/155/56
Max. Resistance Change for Resistance Range, ΔR max., after:			
Load (1000 h, P ₇₀)		$\pm (0.5 \% R + 0.05 \Omega)$	$\pm (0.5 \% R + 0.05 \Omega)$
Long Term Damp Heat Test (56 Days):			
MRS16: 4.99 $\Omega \le R \le 332$ k Ω ; MRS25: 1 $\Omega \le R \le 1$ M Ω		$\pm (0.5 \% R + 0.05 \Omega)$	$\pm (0.5 \% R + 0.05 \Omega)$
MRS16: $R > 332 \text{ k}\Omega$; MRS25: $R > 1 \text{ M}\Omega$		$\pm (2 \% R + 0.05 \Omega)$	± (2 % R + 0.05 Ω)
Soldering (260 °C, 10 s):			
MRS16: 4.99 $\Omega \le R \le 332$ k Ω ; MRS25: 1 $\Omega \le R \le 1$ M Ω		$\pm (0.1 \% R + 0.05 \Omega)$	$\pm (0.1 \% R + 0.05 \Omega)$
MRS16: $R > 332 \text{ k}\Omega$; MRS25: $R > 1 \text{ M}\Omega$		$\pm (0.5 \% R + 0.05 \Omega)$	$\pm (0.5 \% R + 0.05 \Omega)$
Short Time Overload:			
MRS16: $4.99 \Omega \le R \le 332 \text{ k}\Omega$; MRS25: $1 \Omega \le R \le 1 \text{ M}\Omega$		$\pm~(0.1~\%~R+0.01~\Omega)$	± (0.1 % R + 0.01 Ω)
MRS16: $R > 332 \text{ k}\Omega$; MRS25; $R > 1 \text{ M}\Omega$		$\pm (0.5 \% R + 0.05 \Omega)$	± (0.5 % R + 0.05 Ω)

PACKAGING				
MODEL	REEL		вох	
MODEL	PIECES/REEL	CODE	PIECES/BOX	CODE
MRS16	5000 RP	DD	1000	C1
INIUSIO		5000	СТ	
MRS25	5000	RP	1000	C1
			5000	СТ

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For technical questions, contact: filmresistorsleaded@vishay.com

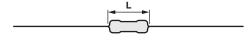
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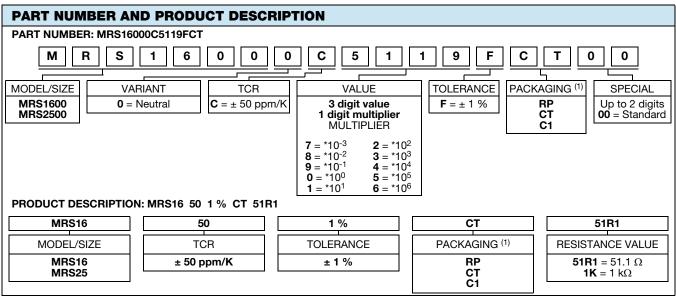
DIMENSIONS







DIMENSIONS (Leaded Resistor Types, Mass and Relevant Physical Dimensions)					
TYPE	D _{max.} (mm)	L _{max.} (mm)	d _{nom.} (mm)	M _{min.} (mm)	MASS (mg)
MRS16	1.6	3.6	0.5	5.0	125
MRS25	2.5	6.5	0.6	10.0	220



Notes

- The PART NUMBER is shown to facilitate the introduction of a unified part numbering system for ordering products
- (1) Please refer packaging table

12NC INFORMATION FOR HISTORICAL CODING REFERENCE

- The resistors have a 12 digit numeric code starting with 2322 15.
- The subsequent 2 digits indicate the resistor type and packaging; see the 12NC Ordering Code table.
- The remaining 4 digits indicate the resistance value:
 - The first 3 digits indicate the resistance value.
 - The last digit indicates the resistance decade in accordance with the 12NC Indicating Resistance Decade table.

Last Digit of 12NC Indicating Resistance Decade

RESISTANCE DECADE	LAST DIGIT
1 Ω to 9.76 Ω	8
10 Ω to 97.6 Ω	9
100 Ω to 976 Ω	1
1 k Ω to 9.76 k Ω	2
10 k Ω to 97.6 k Ω	3
100 kΩ to 976 kΩ	4
1 M Ω to 9.76 M Ω	5
10 ΜΩ	6

12NC Example

The 12NC of a MRS16 resistor with value 750 Ω , supplied on a bandolier of 1000 units in ammopack is: 2322 157 17501.

12NC (Resistors Type and Packaging)				
		2322 15		
TYPE	BANDOLIER IN AMMOPACK		BANDOLIER ON REEL	
	1000 UNITS	5000 UNITS	5000 UNITS	
MRS16	7 1	7 2	7 3	
MRS25	6 1	6 2	6 3	

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