MRS16, MRS25

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
 Dure tip plating provides compatibility with loss
- Pure tin plating provides compatibility with lead (Pb)-free and lead containing soldering processes
- Compatible to RoHS Directive 2002/95/EC

APPLICATIONS

• All general purpose applications

TECHNICAL SPECIFICATIONS					
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, P70	W	0.4	0.6		
Thermal Resistance (R _{th})	K/W	170	150		
Temperature Coefficient	ppm/K	± 50	± 50		
Operating Voltage, Umax. 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, <i>P</i> ₇₀)		± (0.5 % <i>R</i> + 0.05 Ω)	\pm (0.5 % R + 0.05 Ω)		
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		± (0.5 % <i>R</i> + 0.05 Ω)	\pm (0.5 % R + 0.05 Ω)		
MRS16: <i>R</i> > 332 kΩ; MRS25: <i>R</i> > 1 MΩ		± (2 % <i>R</i> + 0.05 Ω)	± (2 % <i>R</i> + 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		± (0.1 % <i>R</i> + 0.05 Ω)	± (0.1 % <i>R</i> + 0.05 Ω)		
MRS16: <i>R</i> > 332 kΩ; MRS25: <i>R</i> > 1 MΩ		± (0.5 % <i>R</i> + 0.05 Ω)	\pm (0.5 % R + 0.05 Ω)		
Short Time Overload:					
MRS16: 4.99 $\Omega \le R \le$ 332 k Ω ; MRS25: 1 $\Omega \le R \le$ 1 M Ω		± (0.1 % <i>R</i> + 0.01 Ω)	± (0.1 % <i>R</i> + 0.01 Ω)		
MRS16: <i>R</i> > 332 kΩ; MRS25; <i>R</i> > 1 MΩ		± (0.5 % <i>R</i> + 0.05 Ω)	± (0.5 % <i>R</i> + 0.05 Ω)		

PACKAGING						
MODEL	REEL		BOX			
MODEL	PIECES/REEL	EL CODE PIECES/E	PIECES/BOX	CODE		
MRS16	5000	RP	1000	C1		
			5000	СТ		
MRS25	5000	RP	1000	C1		
			5000	СТ		

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For technical questions, contact: filmresistorsleaded@vishay.com

Document Number: 28724 Revision: 17-Aug-11



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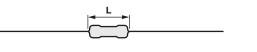


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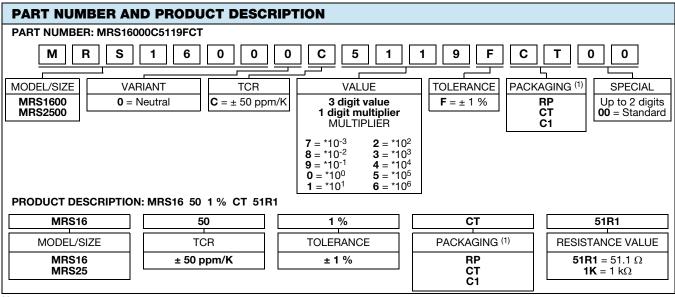
DIMENSIONS







DIMENSIONS (Leaded Resistor Types, Mass and Relevant Physical Dimensions)					
ТҮРЕ	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 kΩ to 97.6 kΩ	3
100 kΩ to 976 kΩ	4
1 MΩ to 9.76 MΩ	5
10 MΩ	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					
BANDOLIER ON REEL					
UNITS					
′ 3					
3					
7					

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