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Technical

Application

Assembly

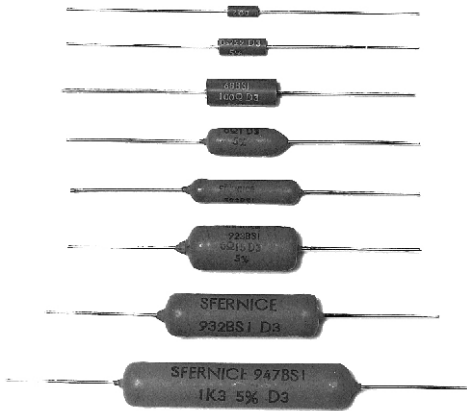
Availability

Pricing

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Molded and Insulated Wirewound Power Resistors Axial Leads



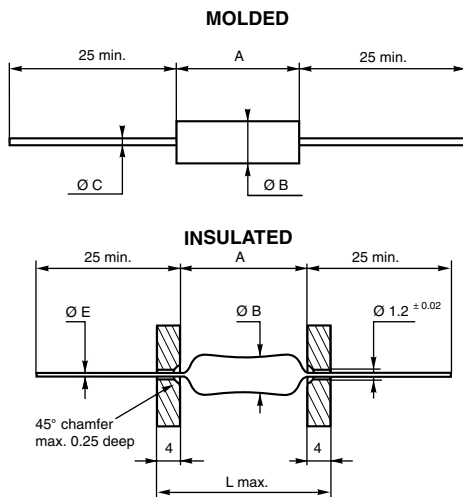
FEATURES

- 1 W to 10 W
- NF C 83-210
- GAM T1 LNZ
- Excellent stability = typical drift $\pm 1\%$ after 2000 h
- High power = up to 10 W (25 °C)
- Low ohmic values = 0.01 Ω available
- Electrical insulation
- Climatic protection



BSI style resistors comply with the most stringent requirements of the NF C 83-210. 8 styles covering the power range from 1 W to 10 W

DIMENSIONS in millimeters



DIMENSIONS in millimeters						
PROTECTION		MOLDED				
Style		58 BSI	63 BSI	68 BSI		
Dim.						
A		6.5 ± 0.2	10 ± 0.2	15 ± 0.5		
Ø B		2.4 ± 0.1	3.7 ± 0.1	5.6 ± 0.2		
Ø C ± 0.1		0.6		0.8		
Weight in g		0.3	0.45	1.3		
PROTECTION		INSULATED				
Style		516 BSI	523 BSI	923 BSI	932 BSI	947 BSI
Dim.						
A		16 ± 2	23 ± 2	23 ± 2	32 ± 2	47 ± 2
Ø B		5 ± 1	5 ± 1	9 ± 1	9 ± 1	9 ± 1
Ø C ± 0.1		0.8				
Weight in g		1.6	2.5	6	7.5	10

TECHNICAL SPECIFICATIONS

VISHAY SFERNICE MODEL AND STYLE		58 BSI	63 BSI	68 BSI	516 BSI	523 BSI	923 BSI	932 BSI	947 BSI
NF C 83-210 Conformity		RP 8	RP 7	RP 4	-	-	RP 5	-	RP 6
LNZ		yes	yes	yes	-	-	yes	-	yes
GAM-T-1		yes	yes	yes	-	-	yes	-	yes
Power Rating at + 25 °C		1 W	2 W	3 W	4 W	5 W	6 W	8 W	10 W
Ohmic Range		0.1 Ω 2 k Ω	0.025 Ω 4 k Ω	0.01 Ω 15 k Ω	0.01 Ω 20 k Ω	0.015 Ω 40 k Ω	0.02 Ω 60 k Ω	0.035 Ω 100 k Ω	0.06 Ω 150 k Ω
Ohmic Range in Relation to	± 100 ppm/°C	$\pm 0.5\%$	0.1 Ω 2 k Ω	0.1 Ω 4 k Ω	0.1 Ω 20 k Ω	0.1 Ω 40 k Ω	0.1 Ω 60 k Ω	0.1 Ω 100 k Ω	0.1 Ω 150 k Ω
	± 300 ppm/°C	$\pm 5\%$	-	0.025 Ω < 0.1 Ω	0.01 Ω < 0.1 Ω	0.01 Ω < 0.1 Ω	0.015 Ω < 0.1 Ω	0.02 Ω < 0.1 Ω	0.035 Ω < 0.1 Ω
Limiting Element Voltage		50 V	120 V	200 V	200 V	250 V	300 V	500 V	750 V

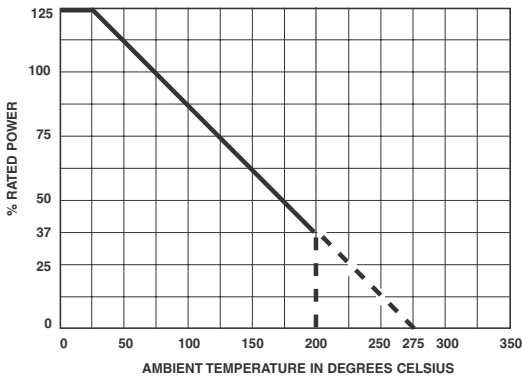


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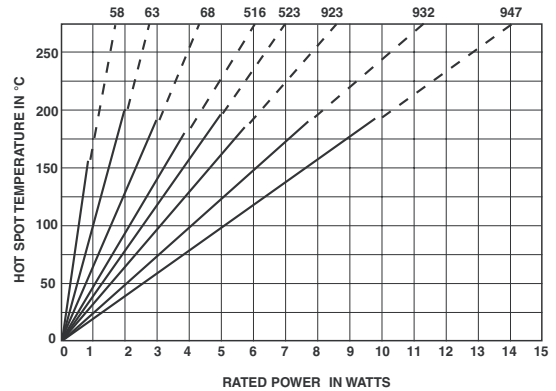
Vishay Sfernice

PERFORMANCE				
TESTS	CONDITIONS	REQUIREMENTS		TYPICAL VALUES AND DRIFTS
		MIL-R-26 E	NF C 83-210	
Dielectric W/s Voltage	1000 V _{RMS} for 923... 947 500 V _{RMS} for 58... 523	± (0.1 % + 0.05 Ω)	-	± (0.1 % + 0.05 Ω)
Short Time Overload	5 Pn/5 s for Pn < 5 W 10 Pn/5 s for Pn ≥ 5 W	± (0.2 % + 0.05 Ω)	± 0.25 % + 0.05 Ω	± (0.1 % + 0.05 Ω)
Climatic Sequence	NF C 83-210 fasc. 19 A - 55 °C/+ 200 °C 5 cycles	-	± 0.5 % + 0.05 Ω Insulation R > 100 MΩ	± (0.3 % + 0.05 Ω) Ins. resistance > 10 ³ MΩ
Humidity (Steady State)	NF C 83-210 fasc. 3 A 56 days 95 % R.H.	-	± 0.5 % + 0.05 Insulation R > 100 M	± (0.3 % + 0.05) Ins. resistance > 10 ³ MΩ
Thermal Shock	Load at 100 % P followed by cold temp. exposure at - 55 °C	± (0.2 % + 0.05 Ω)	± 0.25 % + 0.05 Ω	± (0.1 % + 0.05 Ω)
Vibration	MIL-STD-202 Method 204 - Test D: 20 g 10/2000 Hz	± (0.1 % + 0.05 Ω)	± 0.25% + 0.05 Ω	± (0.05 % + 0.05 Ω)
Load Life	MIL-STD-202 Method 108PR 2000 h	± (0.5 % + 0.05 Ω)	± 0.5% + 0.05 Ω Insulation R ≥ 1 GΩ	± (1 % + 0.05 Ω)
Moisture Resistance	MIL-STD-202 Method 106	± (0.2 % + 0.05 Ω) Insulation resistance > 100 MΩ	-	± (1 % + 0.05 Ω) Ins. resistance > 10 ³ MΩ
High Temperature	250 h at + 275 °C	± (0.5 % + 0.05 Ω)	± 0.5 % + 0.05 Ω Insulation R ≥ 1 GΩ	± (0.3 % + 0.05 Ω)
Shock	MIL-STD-202 100 g Method 205 - Test C	± (0.1 % + 0.05 Ω)	± 0.25 % + 0.05 Ω	± (0.05 % + 0.05 Ω)

POWER RATING CHART



TEMPERATURE RISE



MARKING

GEKA trademark, model, style, nominal resistance (in Ω), tolerance (in %), manufacturing date. Because of lack of space, small styles are marked with ohmic value (in Ω), and tolerance (in %) only.

ORDERING INFORMATION						
BSI	63	U22	2 %	± 100 ppm/°C	TR300	e1
MODEL	STYLE	OHMIC VALUE	TOLERANCE	TEMPERATURE COEFFICIENT	PACKING	LEAD (Pb)-FREE

SAP PART NUMBERING GUIDELINES				
BSI	063	R2200	G	R22
MODEL	STYLE	OHMIC VALUE	TOLERANCE	PACKING