

Data Sheet for Precision Resistor

Voltage Divider (metal foil)

Series MLD



- Resistance range from 50Ω..30kΩ
- TCR up to ±2,5 ppm/°C
- Resistance tolerances absolute from ±0,05%, matching from ±0,02%
- Low current noise with excellent load life ratio stability

Electrical Specification	Absolute	Matching	
Resistance range	50Ω..30kΩ (max. aggregate value 30kΩ)		
Resistance tolerance	±0,05%..±0,5%	±0,02%..±0,1%	
Power rating @ 70°C (0W @ +125°C)	0,25W (each single element)		
TCR-rate	±2,5ppm/°C, ±5ppm/°C	Tracking	
		Ratio	Value
		R1 / R2 = 1	±0,5ppm/°C
		1 < R1 / R2 ≤ 10	±1ppm/°C
10 < R1 / R2 ≤ 100	±2ppm/°C		
R1 / R2 > 100	±3ppm/°C		
Working temperature range (max.)	-25..+125°C		

Mechanical Specification	
Resistance technology / material	Metal foil
Housing material	Epoxy
Connections	Radial cooper tinned

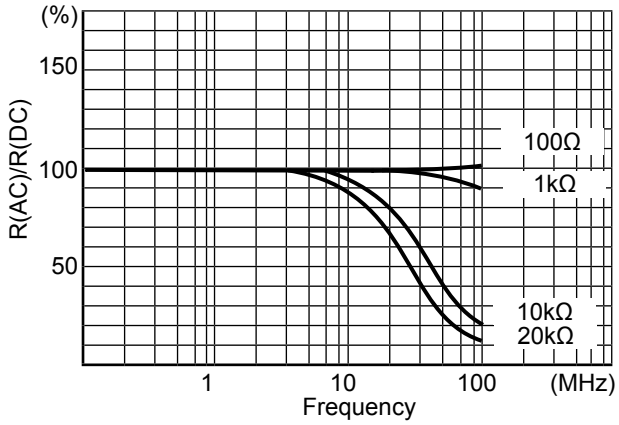
Parameters	Test Conditions	Specification	
		ΔR	Δ Ratio
Short time overload	2,5 x rated voltage, 5 sec.	±0,0025%	±0,001%
Life span (biased)	70°C, rated power, 90 min. on 30 min off, 1000 h	±0,01%	±0,005%
High temperature / humidity	+65°C..-10°C, 90..98% RH rated voltage, 10 cycles, 240h	±0,03%	±0,01%
Temperature shock	-25°C (30 min.), +25°C (5 min), +125°C (30 min), 5 cycles	±0,01%	±0,005%
High temperature exposure	+125°C, no load 1000 h	±0,01%	±0,005%
Solderability	235°C, 2 sec.	Abdeckung > 75%	
Resistance to soldering heat	350°C, 3 sec.	±0,0025%	±0,001%
Isolation resistance	100 VDC, 1 min.	>10.000MΩ	
Dielectric strength	Atmo. Pres.: 300 VAC, 1 min.	±0,0025%	±0,001%
Shock	50G, 11 ms, halfsine, X, Y, Z each 3 shocks	±0,005%	±0,001%
Vibration	20G, 10Hz zu 55Hz zu 10Hz, 1 min. X, Y, Z each 2h	±0,005%	±0,001%

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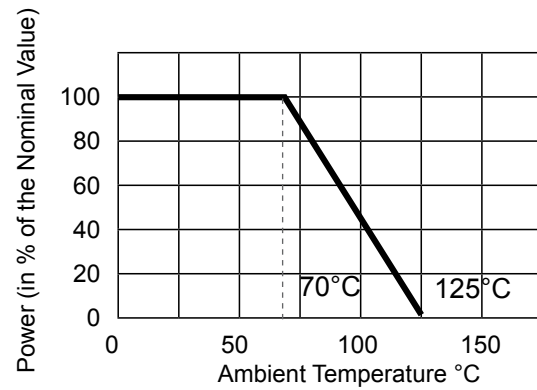
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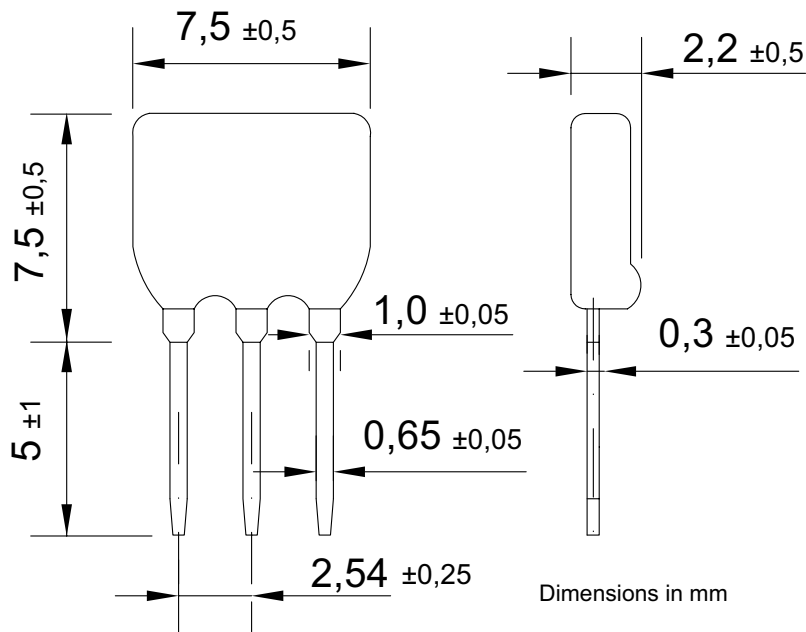
Frequency Characteristics



Power Derating Curve



Drawing



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Order code						
Description		Selection: standard=black/bold, possible options=grey/cursive				
Series:	MLD					
Resistance tolerance absolute: ±0,5% @ R = 50Ω..100Ω ±0,1% @ R = 50Ω..30kΩ ±0,05% @ R = 100Ω..30kΩ		WA0,5% WA0,1% WA0,05%				
Resistance tolerance matching: ±0,1% @ R = 50Ω..30kΩ ±0,05% @ R = 50Ω..30kΩ ±0,02% @ R = 100Ω..30kΩ			WM0,1% WM0,05% WM0,02%			
Temperature coefficient absolute: ±5ppm/°C ±2,5ppm/°C				TK5 TK2,5		
Resistance value 1 - please choose: From 50Ω to ≤ 30kΩ (aggregate value max. 30kΩ)					xxkxxx	
Resistance value 2 - please choose: From 50Ω to ≤ 30kΩ (aggregate value max. 30kΩ)						/xxkxxx

Order Example	Series	Resistance tolerance absolute	Resistance tolerance matching	Temperature coefficient absolute	Resistance value 1	Resistance value 2
Choice	MLD	±0,1%	±0,1%	5ppm/°C	10,1kΩ	5kΩ
Code	MLD	WA0,1%	WM0,1%	TK5	10k100	/5k000