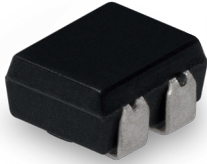


Resistors

SMD - Precision - Voltage Divider

MMU - series

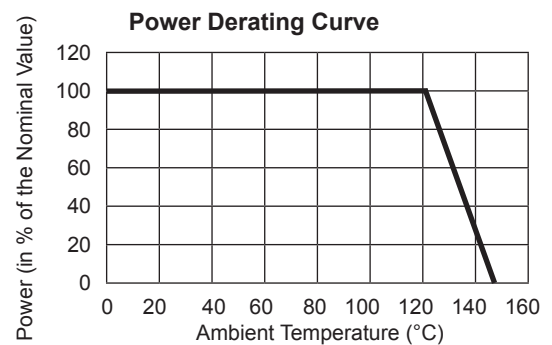


- 1-2-3 Voltage Divider
- Any Resistance from 10Ω - 40kΩ
- Standard TCR from 1ppm
- Rugged Epoxy Housing
- Non-inductive
- Excellent Stability and Accuracy

Spezifikation					TCR Absolute	TCR Tracking
Resistance Range (Ω)	Tolerances (%)		Power 125°C	Voltage (max.)	(ppm/K)	(ppm/K)
	absoluta	matching			-55°C - 125°C	-55°C - 125°C
10Ω - <100Ω	±0,1; ±0,5	±0,05, ±0,1; ±0,5	0,05W	100VDC	±15 (10Ω - <30Ω)	±1 (Ratio = 1)
100Ω - <1kΩ	±0,05, ±0,1; ±0,5	±0,02; ±0,05;	0,05W	100VDC	±10 (30Ω - <100Ω)	±2 (1<Ratio 10
		±0,1; ±0,5			±5 (100Ω - ≤10k)	±3 (10<Ratio 100)
1kΩ - ≤ 20kΩ	±0,02; ±0,05, ±0,1; ±0,5	±0,01; ±0,02; ±0,05, ±0,1; ±0,5	0,05W	100VDC		±5 (100<Ratio)

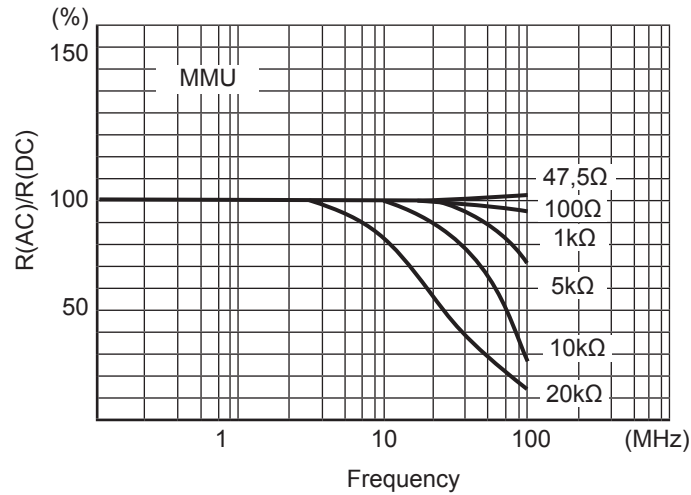
Mechanical Data

Housing	Epoxy - Moulded
Resistance Element	NiCr - Foil
Carrier	Stealit
Leads	Brass, Silver Plated

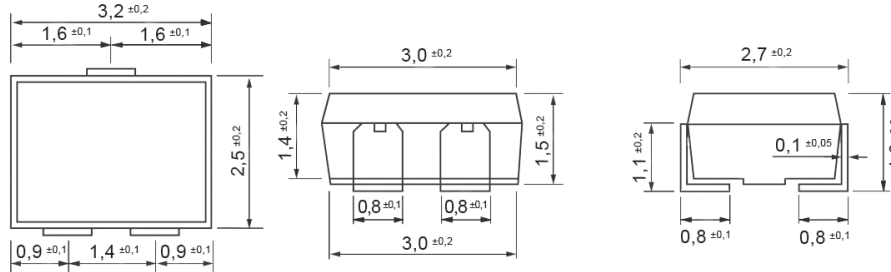


Parameter	Test	Δ R	Δ Ratio
Operating Temperature Range		-65°C bis +150°C	
Thermal Shock	-65°C/30 min., +150°C/30 min., 5 Cycles	±0,05%	±0,02%
Overload	2,5-fache Related Voltage, 5sec.	±0,05%	±0,02%
Soldering Heat Resistance	260°C, 10 sec.	±0,05%	±0,02%
Insulation Resistance	100 VDC, 1 min.	>10.000 MΩ	
Shock	100G, 6 ms, Saw Tooth, X,Y,Z, 10 Shocks each	±0,02%	±0,01%
Vibration	20G, 10Hz-2000Hz-10Hz, 20 min., X,Y,Z, 2,5h each	±0,02%	±0,01%
Load Life	125°C, Related Voltage, 1,5h an, 0,5h aus, 2000h	±0,05%	±0,02%
Humidity	+65°C to -10°C, 90 to 98% R.H., 10 Cycles 240h	±0,05%	±0,02%
Storage Life	15°C to 35°C, 15% R.H. to 75% R.H. Unload 10000h	±0,005%	±0,0025%
High Temperature	150°C, Load Free, 2000h	±0,05%	±0,02%

Frequency Characteristics

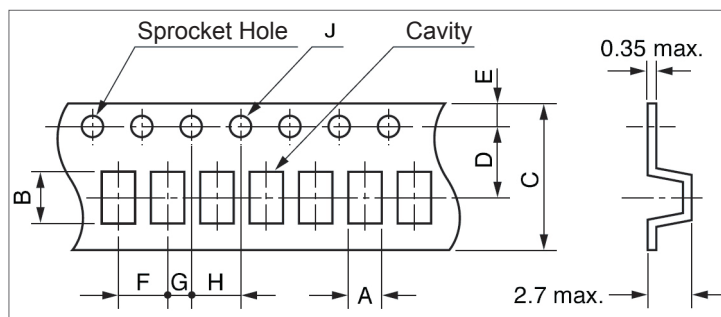


Technical Drawing



All Dimensions in mm

Tape Dimension



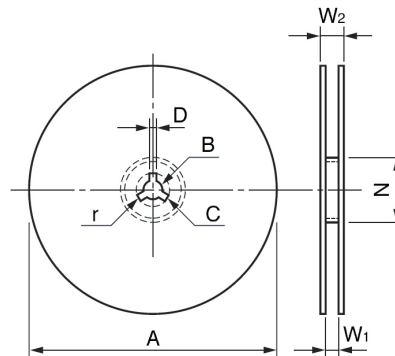
Dimension (mm)	A	B	C	D	E	F	G	H	J
	3,6 ±0,2	3,1 ±0,2	12 ±0,3	5,5 ±0,05	1,75 ±0,1	8 ±0,1	2 ±0,05	4 ±0,1	Ø1,5 ±0,1

Resistors

SMD - Precision - Voltage Divider

MMU - series

Reel Dimensions



Dimension (mm)	A	N	B	C	D	W ₁	W ₂	r
	Ø178 ±0,2	Ø60 min	Ø13 ±0,5	Ø21 ±0,8	2 ±0,5	12,4 +2	18,4 max.	1 ±0,5

Packaging

Reel Capacity	800
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Ordering Information

MMU Type	WA0,1% Tolerance (absolute)	WM0,1% Tolerance (matching)	TK5 Temp. Coefficient (abs.)	10k/10k Resistance Value
	±0,02% (1kΩ - <20kΩ)	±0,01% (1kΩ - <20kΩ)	±15 (10Ω - <30Ω)	(30Ω - 40kΩ)
	±0,05% (100Ω - <20kΩ)	±0,02% (100Ω - <20kΩ)	±10 (30Ω - <100Ω)	The total resistance must not exceed 40kΩ!
	±0,1% (10Ω - <20kΩ)	±0,05% (10Ω - <20kΩ)	±5 (100Ω - ≤10k)	
	±0,5% (10Ω - <20kΩ)	±0,1% (10Ω - <20kΩ)		
		±0,5% 10Ω - <20kΩ)		