

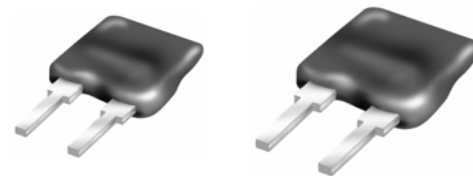
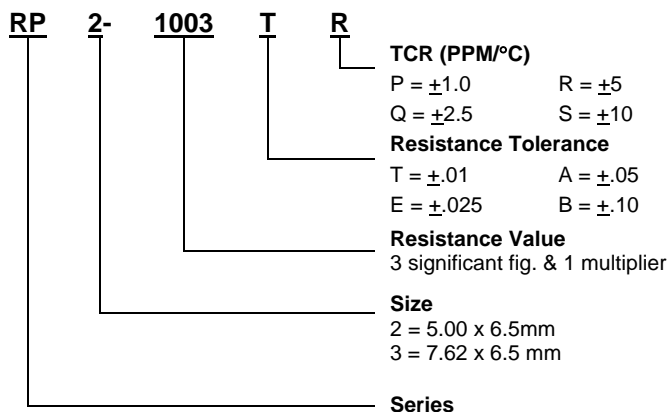


RP Ultra Stable Thin Film Resistor



The content of this specification may change without notification 08/17/06
 Custom solutions are available.

HOW TO ORDER



FEATURES

- Ultra Stable Thin Film Resistor
- Working temperature -50°C to +150°C
- Excellent to performance of absolute tolerance as .01% and absolute TCR at 1ppm
- Applicable Specifications: EIA575, CECC 40300, and MIL-R-55182E

RESISTANCE RANGE

Type	TCR/ppm°C	Resistance Ω	Tolerance %
RP2	±10	10.0 – 50.0	±0.10
	±1, ±2.5, ±5, ±10	50.0 – 100K	±0.01, ±0.05, ±0.25, ±0.10
RP3	±10	10.0 – 50.0	±0.10
	±1, ±2.5, ±5, ±10	50.0 – 200K	±0.01, ±0.05, ±0.25, ±0.10
	±5, ±10	200K – 1.0M	±0.05, ±0.10

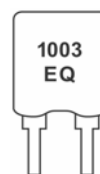
MECHANICAL SPECIFICATIONS

Resistive Material	Nichrome
Substrate Material	Alumina
Terminals	SnPb on Cu Alloy
Protection	Epoxy Coating

STANDARD ELECTRICAL SPECIFICATIONS

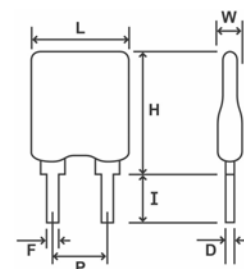
TEST	SPECIFICATION	CONDITIONS
Material	Passivated Nichrome	
Absolute TCR	± 1.0ppm/°C to ±10 ppm/°C	0°C to +70°C
Tolerance Absolute	± 0.01% to 0.10%	
Power Rating	RP2	125mW @ +70°C
	RP3	250mW @ +70°C
Working Voltage (Max)	RP2	112 volts
	RP3	250 volts
Overload Voltage (Max)	RP2	250 volts
	RP3	500 volts
Operating Temp. Range	-55°C to +150°C	

MARKING



- 1003 = Resistance Value (Ω)
 E = Tolerance of ±0.025
 Q = TCR of ±2.5

SCHEMATIC



DIMENSIONS (mm)

Style	L	H	I	P	W	D	F
RP2	5.00 Max	6.50 Max	3.0 ± 0.5	2.54 ± 0.2	2.5 Max	0.25+0.15-0.5	0.50+0.15-0.5
RP3	7.62 Max	6.50 Max	3.0 ± 0.5	5.08 ± 0.2	2.5 Max	0.25+0.15-0.5	0.50+0.15-0.05

PERFORMANCE

TEST	REQUIREMENTS			CONDITIONS
	CECC 40300	MIL-R-55182E	Drifts Max.	
Overload	± 0.01%	± 0.05%	0.01%	2.5Un/5sec; U Max. <2Un
Temperature Cycling	± 0.01%	± 0.05%	0.01%	-55°C to +155°C for 5 cycles CEI 68-2-14
Terminal Strength	± 0.01%	± 0.02%	0.01%	CEI 68-2-21 Test Ua (Pulling), Ub (Bending), Uc (Twisting)
Resistance to Solder Heat	± 0.01%	± 0.02%	± 0.01%	+260°C/10 sec
Vibration	± 0.01%	± 0.02%	0.01%	10Hz to 500Hz 10g 6hrs. Met B4; CEI 68-2-6 Test Fc
Climatic Sequence	± 0.05% Insulation Resistance > 10 ² MΩ	--	0.05%	-55°C/+155°C for 6 cycles 95% RH RH85mbar CEI68-2-61
Moisture	± 0.05% Insulation Resistance > 10 ² MΩ	--	0.02%	56 Days 95% RH +40°C; CEI 68-2-3
Load Life	± 0.05%	± 0.05%	0.05%	1000 hrs. Pn at 70°C 90'/30'
High Temp. Storage	± 0.05%	--	0.05%	1000 hrs./+155°C; CEI 68-2; Test B



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