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ULTRA STABLE THIN FILM RESISTOR

HOW TO ORDER

RP 2 - 1003 T R

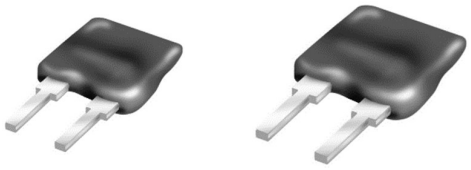
TCR (PPM/°C)
P = ±1.0 **R = ±5**
Q = ±2.5 **S = ±10**

Resistance Tolerance
T = ±.01 **A = ±.05**
E = ±.025 B = ±.10

Resistance Value
3 significant fig. & 1 multiplier

Size
2 = 5.00 x 6.5mm
3 = 7.62 x 6.5 mm

Series RP



FEATURES

- Ultra-Stable Thin Film Resistor
- Working temperature -50°C to +150°C
- Excellent performance tolerance 01% & TCR at 1ppm

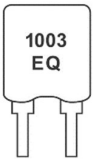
MECHANICAL SPECIFICATIONS

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

RESISTANCE RANGE

Type	TCR/ppmºC	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

MARKING

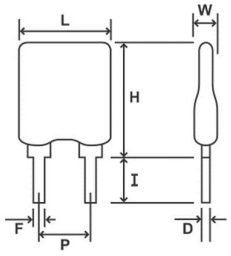


1003 = Resistance Value (Ω)
E = Tolerance of ±0.25
Q = TCR of ±2.5

STANDARD ELECTRICAL SPECIFICATIONS

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

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%	-55ºC to +155ºC 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%	+260ºC/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 > 10^2M□	--	0.05%	-55ºC/+155ºC for 6 cycles 95% RH RH85mbar CEI68-2-61
Moisture	± 0.05% Insulation Resistance > 10^2M□	--	0.02%	56 Days 95% RH +40ºC; CEI 68-2-3
Load Life	± 0.05%	± 0.05%	0.05%	1000 hrs. Pn at 70ºC 90'/30'
High Temp. Storage	± 0.05%	--	0.05%	1000 hrs./+155ºC; CEI 68-2; Test B