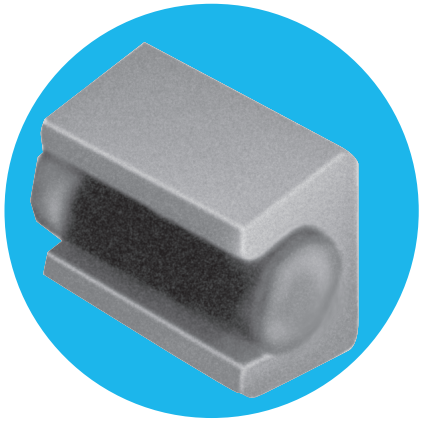
Resistors

Metal Glaze™ Power Pack Surface Mount High Power Density Ceramic Package



PPS-1 Series

- Low inductance
- 0.1Ω to 348KΩ range
- Superior surge handling capability
- 150°C maximum operating temperature
- 1 Watt performance - standard 2010 footprint
- Flameproof ceramic package provides superior temperature rise profile

NOT RECOMMENDED FOR NEW DESIGNS

All Pb-free parts comply with EU Directive 2011/65/EU (RoHS2)

Electrical Data

Size	Type	Maximum Power Rating	Working Voltage[1]	Maximum Voltage	Resistance Range (ohms)	Tolerance (±%)[2]	TCR (ppm/°C)[2]
2010	PPS-1	1W	350	700	0.1 to 0.99	1, 2, 5	100
					1.0 to 348K	1, 2, 5	50, 100

[1]Not to exceed ($\sqrt{P \times R}$). [2]Consult factory for tighter tolerances and TCRs.

Applications

The PPS-1 will dissipate 1 watt at 70°C on a 2010 footprint. The PPS-1 is recommended for applications where board real estate or component/board TCE mismatch is a major concern. It is also recommended in circuits where a standard 2010 resistor exhibits marginal or unacceptable performance due to high power density/surge handling demands.

Environmental Data

Characteristic	Maximum Change	Test Method
Thermal Shock	±(0.5% + 0.01 ohm)	MIL-R-55342E Par 4.7.3 (-65°C + 150°C, 5 cycles)
Low Temperature Operation	±(0.25% + 0.01 ohm)	MIL-R-55342E Par 4.7.4 (-65°C @ working voltage)
Short Time Overload	±(1.0% + 0.01 ohm)	MIL-R-55342E Par 4.7.5 (2.5 x (PxR)^{½}
High Temperature Exposure	±(0.5% + 0.01 ohm)	MIL-R-55342E Par 4.7.6 (+150°C for 100 hours)
Resistance to Bonding Exposure	±(0.25% + 0.01 ohm)	MIL-R-55342E Par 4.7.7 (Reflow soldered to board @ 260°C for 10 seconds)
Solderability	95% minimum coverage	MIL-STD-202, Method 208 (245°C for 5 seconds)
Moisture Resistance	±(0.5% + 0.01 ohm)	MIL-R-55342E Par 4.7.8 (10 cycles, total 240 hours)
Life Test	±(1.0% + 0.01 ohm)	MIL-R-55342E Par 4.7.10 (2000 hours @ 70°C intermittent)
Terminal Adhesion Strength	±(1% + 0.01 ohm)	1200 gram push from underside of mounted chip for 60 seconds
Resistance to Board Bending	±(1% + 0.01 ohm)	Chip mounted in center of 90mm long board, deflected 5mm so as to exert pull on chip contacts for 10 seconds

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability.
All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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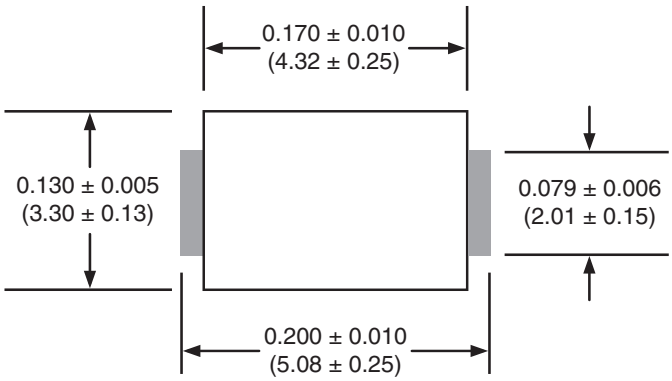
www.ttelectronicsresistors.com

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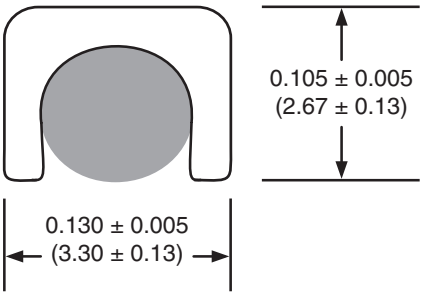
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Physical Data (Inches and (mm))

Top View:



Side View:



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Ordering Procedure

This product has two valid part numbers:

European (Welwyn) Part Number: PPS1-100RFI (PPS1 with TCR ±100ppm/°C at 100 ohms ±1%, Pb-free)

P	P	S	1				-	1	0	0	R	F	I
1				2				3				4	5

1 Type	2 TCR (ppm/°C)	3 Value	4 Tolerance	5 Termination & Packing
PPS1	Omit for ±100	E24 = 3/4 characters E96 = 4/5 characters R = ohms K = kilohms	F = ±1%	I = Pb-free, Tape Pack
	-50 = ±50		G = ±2%	PB = SnPb, Tape Pack
			J = ±5%	500/reel

USA (IRC) Part Number: PPS11001000FLF (PPS1 with TCR ±100ppm/°C at 100 ohms ±1%, Pb-free)

P	P	S	1	1	0	0	1	0	0	0	F	L	F
1				2			3				4	5	

1 Type	2 TCR	3 Value	4 Tolerance	5 Termination & Packing
PPS1	50 = ±50	3 digits + multiplier	F = ±1%	Omit for SnPb
	100 = ±100	R = ohms for values <100 ohms	G = ±2%	LF = Pb-free
			J = ±5%	500/reel

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