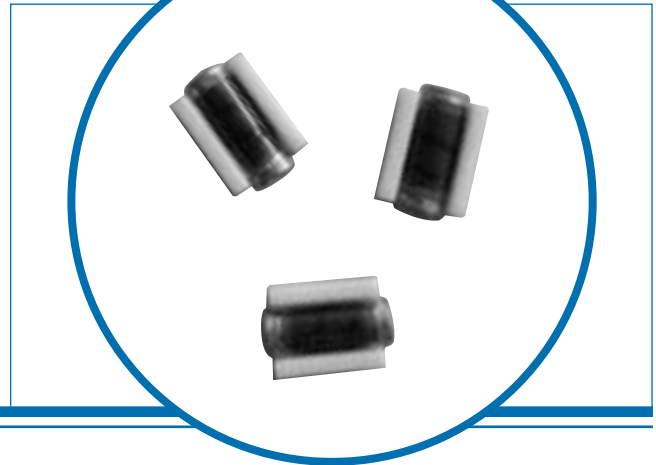


# Metal Glaze™ Power Pack Surface Mount High Power Density Ceramic Package

## PPS-1 Series

- 1 watt performance, standard 2010 footprint
- Flat ceramic package
- 0R1 to 348K range
- Low inductance
- Superior surge handling capability
- 150°C maximum operating temperature
- Flameproof
- Ceramic package provides superior temperature rise profile



## Electrical Data

		PPS-1
Industry footprint		2010
Maximum power rating at 70°C	watts	1
Working voltage <sup>1</sup>	volts	350
Maximum voltage	volts	700
Resistance range	ohms	0.1 to 0.99 1.0 to 348K
Tolerance	±% <sup>2</sup>	1, 2, 5 1, 2, 5
TCR	ppm/°C <sup>2</sup>	100 50, 100

<sup>1</sup> Not to exceed  $(P \times R)^{1/2}$

<sup>2</sup> Consult factory for tighter tolerance or TCR

## PPS-1 Applications

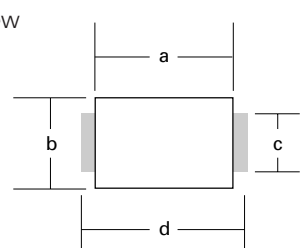
The PPS-1 will dissipate 1 watt at 70°C on a 2010 footprint. The PPS-1 is recommended for applications where board real estate or component/board TCE mismatch is a major concern.

It is also recommended in circuits where a standard 2010 resistor exhibits marginal or unacceptable performance due to high power density/surge handling demands.

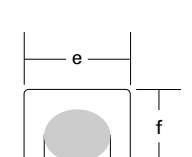
## Physical Data

Dimensions (mm)						
	a	b	c	d	e	f
PPS-1	4.32 ±0.25	3.30 ±0.13	2.01 ±0.15	5.08 ±0.25	3.30 ±0.13	2.67 ±0.13

Top view



Side view



### General Note

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

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

PPS-1 Series



## Performance Data

	Test Method	Maximum Change
Temperature coefficient	MIL-R-55342E Par 4.7.9 (-55°C +125°C)	As specified above
Thermal Shock	MIL-R-55342E Par 4.7.3 (-65°C +150°C, 5 cycles)	±(0.5% +0.01 ohm)
Low temperature	MIL-R-55342E Par 4.7.4 (-65°C @ working voltage)	±(0.25% +0.01 ohm)
Short time overload	MIL-R55342E Par 4.7.5 (2.5 x (PxR)1/2)	±(1.0% +0.01 ohm)
High temperature exposure	MIL-R55342E Par 4.7.6 (+150°C for 100 hours)	±(0.5% +0.01 ohm)
Resistance to bonding exposure	MIL-R55342E Par 4.7.7 (Reflow soldered to board at 260°C for 10 sec.)	±(0.5% +0.01 ohm)
Solderability	MIL-STD-202, Method 208 (245°C for 5 seconds)	95% minimum coverage
Moisture resistance	MIL-R55342E Par 4.7.8 (10 cycles, total 2240 hours)	±(0.5% +0.01 ohm)
Life test	MIL-R55342E Par 4.7.10 (2000 hours at 70°C intermittent)	±(1.0% +0.01 ohm)
Terminal adhesion strength	1200 gram push from underside of mounted chip for 60 seconds	±(1% +0.01 ohm)
Resistance to board bending	Chip mounted in centre of 90mm long board deflected 5mm so as to extent pull on chip contacts for 10 seconds	+(1% +0.01 ohm)

## Ordering Procedure

Example: PPS1 at 10 Ohms and 2% tolerance on a reel of 500 pieces –

**PPS1-10RGI**

