

# GENERAL PURPOSE 2W TO 25 WATT CERAMIC ENCASED RESISTORS

## PW SERIES

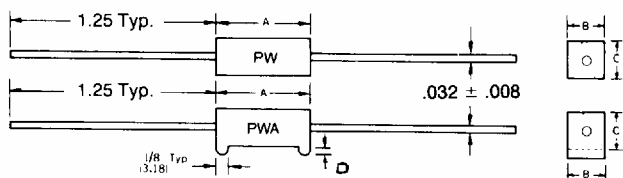


### FEATURES

- Low cost, fireproof construction
- **Delivery from stock!** (Refer to p. 4). Non-stock items are available on exclusive 'SWIFT' delivery program.
- $\pm 5\%$  tolerance is standard (available to  $\pm 1\%$ )
- Wide resistance range:  $.05\Omega$  to  $100K\Omega$ .
- Improved TCR:  $\pm 100$  PPM Typ.

### SPECIAL MODIFICATIONS

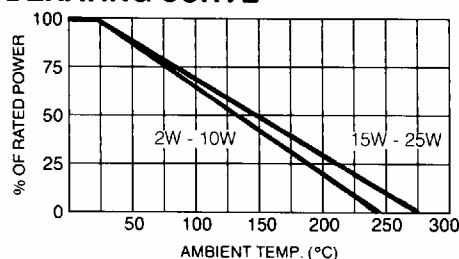
- **STAND-OFFS** (built into ceramic case): Option A
- **STAND-OFFS** (built into radial leads): Option LL
- **NON-INDUCTIVE**: Option X
- **SURGE RESISTORS**: Option P
- **INCREASED WATTAGE**: Option B
- **FUSE RESISTORS**: Option FF
- **POSITIVE T.C.'s**: Option T
- **MOISTURE SEAL**: Option HC



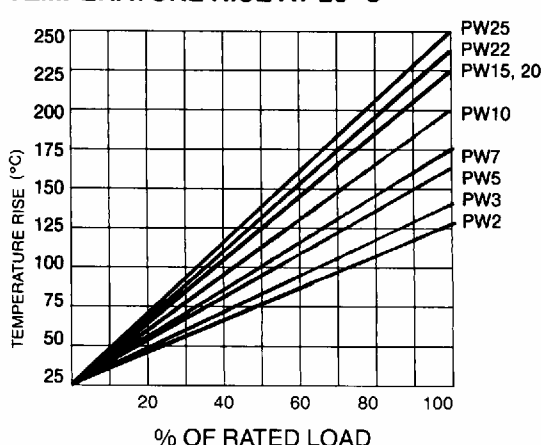
Economical power resistors feature the industry's widest resistance range, up to  $100K\Omega$ !

RCD Series PW commercial-grade resistors provide highly reliable continuous operation, far superior to industry standard. Welded cap/lead assembly results in reduced noise levels and improved stability. Proprietary inorganic potting compound was developed for optimum thermal conductivity reducing hot spots commonly found in conventional designs. Construction is completely fireproof, and resistant to solvents.

### DERATING CURVE



### TEMPERATURE RISE AT 25°C



| RCD Type    | Wattage |          | Max.** Resis. | Max. Working Voltage <sup>1</sup> | DIMENSIONS (Numbers in brackets are mm) |                  |                 |                  |
|-------------|---------|----------|---------------|-----------------------------------|---|------------------|-----------------|------------------|
|             | Std.    | Opt. 'B' |               |                                   | A                                       | B                | C               | D                |
| PW2         | 2       | 3        | 100K          | 100                               | $\pm .04$ [1.0]                         | $\pm .032$ [.81] | $\pm .05$ [1.3] | $\pm .025$ [.64] |
| PW3         | 3       | 5        | 100K          | 150                               | .88 [22.4]                              | .31 [7.9]        | .31 [7.9]       | .06 [1.5]        |
| Stock PW5   | 5       | 7        | 100K          | 200                               | .88 [22.4]                              | .38 [9.7]        | .35 [8.9]       | .06 [1.5]        |
| PW7         | 7       | 10       | 27K           | 350                               | 1.39 [35.3]                             | .38 [9.7]        | .35 [8.9]       | .12 [3.0]        |
| Stock PW10  | 10      | —        | 30K           | 500                               | 1.88 [47.8]                             | .38 [9.7]        | .38 [9.7]       | .12 [3.0]        |
| PW15        | 15      | —        | 30K           | 540                               | 1.88 [47.8]                             | .50 [12.7]       | .50 [12.7]      | .12 [3.0]        |
| PW20        | 20      | —        | 40K           | 600                               | 2.50 [63.5]                             | .50 [12.7]       | .50 [12.7]      | .12 [3.0]        |
| PW22        | 22      | —        | 40K           | 650                               | 2.50 [63.5]                             | .50 [12.7]       | .50 [12.7]      | .12 [3.0]        |
| PW25        | 25      | —        | 40K           | 700                               | 2.50 [63.5]                             | .50 [12.7]       | .50 [12.7]      | .12 [3.0]        |
| New - PW25S | 25      | —        | 40K           | 650                               | 2.35 [59.7]                             | .56 [14.2]       | .56 [14.2]      | N/A              |

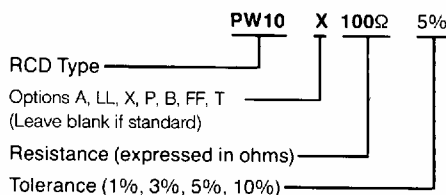
\*\* Power film resistor element used to achieve high resistance values and non-inductive performance.  
<sup>1</sup> Max. voltage rating is determined by  $E = \sqrt{PR}$ , E should not exceed the value listed.

### PERFORMANCE SPECIFICATIONS\*

|                           |                                 |                            |
|---------------------------|---------------------------------|----------------------------|
| Temp.                     | 1 $\Omega$ and above            | 100ppm typ., 300 ppm max.  |
| Coefficient               | below 1 $\Omega$                | 200 ppm typ., 600 ppm max. |
| Terminal Strength         | 5 lbs. minimum                  |                            |
| Operating Temp. -55°C to: | +235° (2W-10W), +275°C (15-250) |                            |
| Dielectric Strength       | 1000V                           |                            |
| Short-time Overload       | 2.0% + .05 $\Omega$             |                            |
| Moisture Resistance       | 5.0% + .05 $\Omega$             |                            |
| High Temp. Exposure       | 2.0% + .05 $\Omega$             |                            |
| Load Life (1000 hours)    | 5.0% + .05 $\Omega$             |                            |
| Temperature Cycling       | 3.0% + .05 $\Omega$             |                            |
| Shock and Vibration       | 2.0% + .05 $\Omega$             |                            |

\*Consult factory for a detailed Engineering report.

### HOW TO ORDER:



Note: RCD utilizes both wirewound and film elements in the construction of PW resistors. Please specify at the time of ordering if a specific type is preferred.

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