



## Vitreous Enamelled, Radial Tubular Resistors

## Series PVR

### Key Features

- 5W to 225W Power Rating.
- All Welded Construction.
- Non-Flammable Vitreous Enamel Coating.
- High Overload and Pulse Handling Capability.
- Axial & Radial Welded Leads for PCB Mounting.
- Quick Connect, Solder Dipped Terminals.
- Reference Standards.
  - MIL-R-26 [CHAR V]
  - JSS 50402 RFHT-2
  - IS 8909



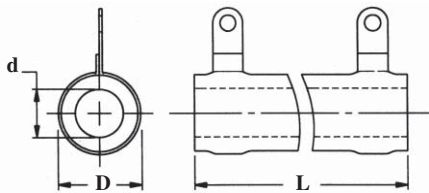
### Specifications

|              |   |
|--------------|---|
| Coating      | Non-Flammable Vitreous Enamel Coating   |
| Core         | Porcelain / Steatite                    |
| Terminals    | Solder Dipped / Quick Connect Terminals |
| Element      | Copper Nickel or Nickel Chrome Alloy    |
| Tolerance    | ±5% - 1Ω and over, ±10% - Under 1Ω      |
| Derating     | Linearly 100% @25°C to 0% @ 350°C       |
| Power Rating | Based on 25°C Free Air Rating           |
| Over Load    | 10 x Rated Wattage For 5 Secs           |
| TCR          | < 5Ω : ± 260ppm/°C, > 5Ω : ± 200ppm/°C  |

### Electrical Specifications

| Type   | Power<br>@25°C<br>Watts | Voltage<br>Max<br>Volts | Ohmic Range<br>Ω |     |
|--------|-------------------------|-------------------------|------------------|-----|
|        |                         |                         | Min              | Max |
| PVR5   | 5                       | 125                     | 1R0              | 1K  |
| PVR20  | 20                      | 750                     | 1R0              | 10K |
| PVR25  | 25                      | 625                     | 1R0              | 10K |
| PVR50  | 50                      | 1100                    | 1R5              | 15K |
| PVR100 | 100                     | 2100                    | 2R7              | 20K |
| PVR175 | 175                     | 2900                    | 3R3              | 39K |
| PVR225 | 225                     | 3600                    | 3R3              | 47K |

### Dimensional Specifications



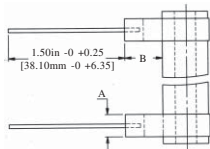
\*Note: For Other Sizes and Power Ratings please contact us.

| Type   | Core Dimensions in Inches [mm] |                    |                    |                   | Terminal Options |          | Mounting |
|--------|--------------------------------|--------------------|--------------------|-------------------|------------------|----------|----------|
|        | Tube OD<br>(D-Nom)             | Tube ID<br>(d-Nom) | Length<br>(L)      | Length<br>Tol (±) | Standard         | Optional | Options  |
| PVR5   | 0.313<br>[7.94]                | 0.188<br>[4.76]    | 1.000<br>[25.40]   | 0.020<br>[0.51]   | T1               | A1/R1    | -        |
| PVR20  | 0.438<br>[11.11]               | 0.250<br>[6.35]    | 2.000<br>[50.80]   | 0.039<br>[1.01]   | T1               | A1/R1    | -        |
| PVR25  | 0.563<br>[14.29]               | 0.313<br>[7.94]    | 2.000<br>[50.80]   | 0.039<br>[1.01]   | T2               | A2/R2    | Z1       |
| PVR50  | 0.563<br>[14.29]               | 0.313<br>[7.94]    | 4.000<br>[101.60]  | 0.080<br>[2.03]   | T2               | T4       | Z1       |
| PVR100 | 0.750<br>[19.05]               | 0.500<br>[12.70]   | 6.500<br>[165.10]  | 0.130<br>[3.30]   | T2               | T4       | Z2, L1   |
| PVR175 | 1.125<br>[28.58]               | 0.750<br>[19.05]   | 8.500<br>[215.90]  | 0.170<br>[4.32]   | T3               | T2, T4   | Z3, L2   |
| PVR225 | 1.125<br>[28.58]               | 0.750<br>[19.05]   | 10.500<br>[266.70] | 0.210<br>[5.33]   | T3               | T2, T4   | Z3, L2   |

### Radial Lead

(For Styles : R1, R2)

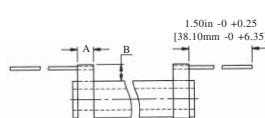
| Terminal Style | Dimensions in Inches [mm] |                 |
|----------------|---------------------------|-----------------|
|                | A                         | B               |
| R1             | 0.125<br>[3.18]           | 0.315<br>[8.00] |
| R2             | 0.188<br>[4.76]           | 0.315<br>[8.00] |



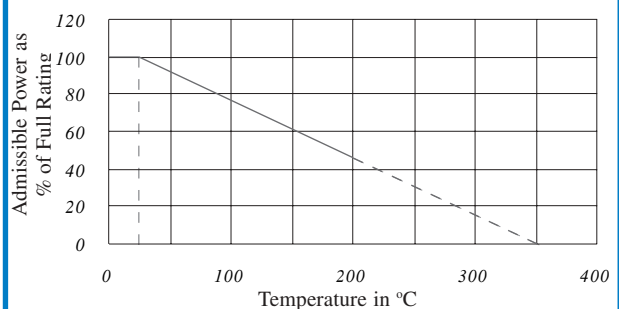
### Axial Lead

(For Styles : A1, A2)

| Terminal Style | Dimensions in Inches [mm] |                 |
|----------------|---------------------------|-----------------|
|                | A                         | B               |
| A1             | 0.125<br>[3.18]           | 0.315<br>[8.00] |
| A2             | 0.188<br>[4.76]           | 0.315<br>[8.00] |



### Derating Curve<sup>2</sup>

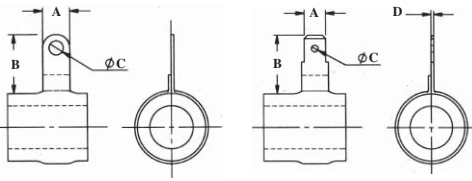


### Solder Dipped

(For Styles : T1, T2, T3)

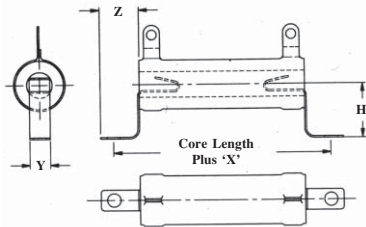
### Quick Connect

(For Style : T4)



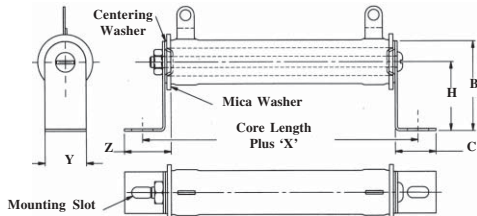
| Terminal Style | Dimensions in Inches [mm] |                  |                 |                 |
|----------------|---------------------------|------------------|-----------------|-----------------|
|                | A                         | B                | C               | D               |
| T1             | 0.188<br>[4.76]           | 0.438<br>[11.11] | 0.102<br>[2.60] | -               |
| T2             | 0.250<br>[6.35]           | 0.563<br>[14.29] | 0.165<br>[4.20] | -               |
| T3             | 0.313<br>[7.94]           | 0.625<br>[15.88] | 0.197<br>[5.00] | -               |
| T4             | 0.250<br>[6.35]           | 0.625<br>[15.88] | 0.078<br>[2.00] | 0.031<br>[0.79] |

### Push-In Type Z Clips



| Bracket Type | Dimensions in Inches [mm] |                  |                  |                  |                              |
|--------------|---------------------------|------------------|------------------|------------------|------------------------------|
|              | X                         | H                | Y                | Z                | Hole (Dia)                   |
| Z1           | 0.625<br>[15.88]          | 0.672<br>[17.07] | 0.250<br>[6.35]  | 0.469<br>[11.91] | 0.161<br>[4.09]              |
| Z2           | 0.719<br>[18.26]          | 1.228<br>[31.20] | 0.375<br>[9.53]  | 0.625<br>[15.88] | 0.196x0.260<br>[4.98]x[6.60] |
| Z3           | 0.813<br>[20.64]          | 1.291<br>[32.80] | 0.500<br>[12.70] | 0.688<br>[17.46] | 0.196x0.260<br>[4.98]x[6.60] |

### Horizontal Thru - Bolt



| Bracket Type | Dimensions in Inches [mm] |                  |                  |                  |                               |                  |                  |
|--------------|---------------------------|------------------|------------------|------------------|-------------------------------|------------------|------------------|
|              | X                         | Y                | Z                | H                | Mounting Slot                 | C                | B                |
| L1           | 1.063<br>[26.99]          | 0.750<br>[19.05] | 0.859<br>[21.83] | 1.250<br>[31.75] | 0.219x0.438<br>[5.56]x[11.11] | 0.750<br>[19.05] | 1.750<br>[44.45] |
| L2           | 1.063<br>[26.99]          | 1.250<br>[31.75] | 1.000<br>[25.40] | 1.500<br>[38.10] | 0.281x0.563<br>[7.14]x[14.29] | 0.875<br>[22.23] | 2.125<br>[53.98] |

### To Order - Please Specify

| PEC Type | Ohmic Value  | Tolerance                             | Terminal  | Packing Style | Release Condition | Mounting Hardware                         |
|----------|--|---------------------------------------|---|---------------|-------------------|---|
| PVR25**  | 0.1 Ohm » 0R1/R10<br>1 Ohm » 1R0<br>1 KOhm » 1K0<br>10.7 KOhm » 10K7 | 1% » F<br>2% » G<br>5% » J<br>10% » K | Standard » S<br>Optional » Specify<br>Custom Design » M<br>(Please Specify Details) | Bulk » B      | Commercial » X    | If Required<br>Specify<br>Bracket<br>Type |

A Sample Part No.: **PVR25 1K0JR2BXZ1**

\*\* For Non-Inductive Version, Please specify PVR25N

### Notes

- On request we undertake tests for Batch Acceptance to a specified Reference Standard.
- The Derating Curve specifies the maximum allowable Power at a particular ambient temperature while ensuring that the maximum surface temperature remains within the designed limit.
- When the Resistor is subjected to a Pulse Load, please ensure that the *average* Power dissipated remains below the rated Power specified.
- Resistor performance with Pulse Loads will have to be application tested. Please utilise our Pulse Application Questionnaire for selecting a suitable type or for requesting any design-in assistance from us.

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#### Factory Coordination

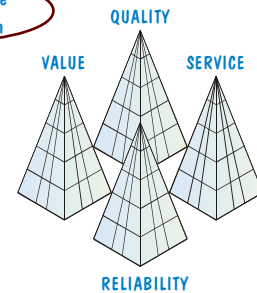
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to Work with



Thoughtful engineering and production by a well trained work-force, backed by strong design and development skills, enable us to maintain a level of manufacture and service recognised internationally.  
**At PEC we offer well-tuned customised support.**