

# SERIES PMS, PPR, PPT RESISTORS & TERMINATIONS

High Power, Thin Film, Drop-in – 10-650 Watts, DC-4 GHz

## GENERAL INFORMATION

These high power devices are designed to dissipate power in R.F. circuits when mounted to an appropriate heat sink. The terminations provide a low VSWR under maximum power conditions. The resistor configurations are typically used in "Wilkinson" type power divider networks, or to terminate 3 dB stripline or microstrip hybrids.

### NOTES

1. Input power ratings are based on flange temperature of 100° C maximum.
2. 50 and 100 Ohms standard. Other values from 10-500 ohms available on special order. Contact factory for details. Standard tolerance  $\pm 5\%$ . Specify resistance value when ordering.
3. VSWR applies to termination style only.

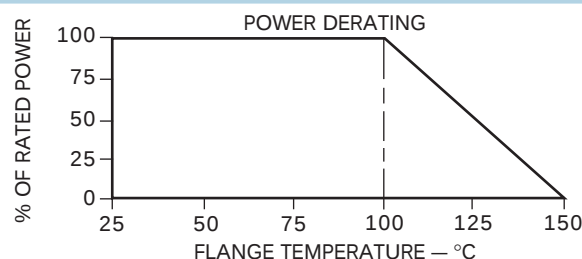
## GENERAL SPECIFICATIONS

|                   |                                               |
|-------------------|-----------------------------------------------|
| Resistive Element | Thin Film and Thick Film*                     |
| Substrate         | Beryllium Oxide Ceramic                       |
| Cover             | Alumina Ceramic                               |
| Mounting Flange   | Copper, Nickel Plated per QQ-N-290            |
| Tab               | Beryllium Copper, Gold Plated per MIL-G-45204 |

\* Low cost thick film models available on some sizes. Consult Factory for specifications.



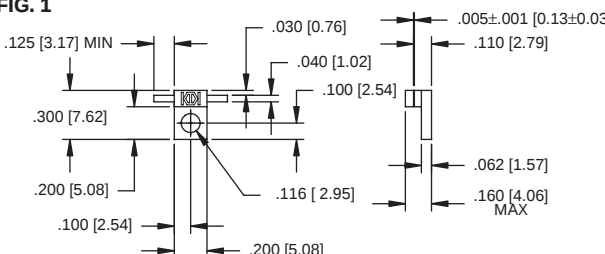
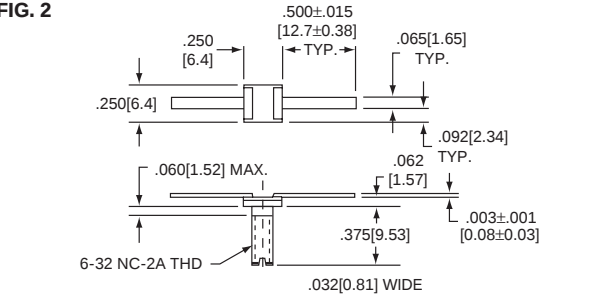
## AVERAGE POWER DERATING CURVE



## PERFORMANCE SPECIFICATIONS

| Model                | Frequency Range | Input Power (Watts Avg.) | VSWR (Typical) (Note 3)                    | Capacitance (pF) (Typ.) | Figure No. |
|----------------------|-----------------|--------------------------|--------------------------------------------|-------------------------|------------|
| PPR & PPT 300-10-3*  | DC-4.0 GHz      | 10                       | 1.35:1 —DC-4.0 GHz                         | 0.8                     | 1          |
| PMS-100 & PMS-200*   | DC-2.0 GHz      | 20                       | 1.25:1 —DC-2.0 GHz                         | 1.2                     | 2          |
| PPR & PPT 515-20-3*  | DC-2.0 GHz      | 20                       | 1.10:1 —DC-1.0 GHz<br>1.25:1 —1.0-2.0 GHz  | 0.8                     | 3          |
| PPT515-30-4          | DC-4.0 GHz      | 30                       | 1.20:1 —DC-4 GHz                           | 1.2                     | 4          |
| PPR & PPT 515-30*    | DC-2.0 GHz      | 30                       | 1.10:1 —DC-1.0 GHz<br>1.25:1 —1.0-2.0 GHz  | 0.8                     | 5          |
| PPR & PPT 800-40-3   | DC-4.0 GHz      | 40                       | 1.25:1 —DC-4.0 GHz                         | 1.4                     | 6          |
| PPT800-100A          | DC-2.0 GHz      | 100                      | 1.25:1 —DC-2.0 GHz                         | 1.4                     | 7          |
| PPR & PPT 870-150-3* | DC-1.0 GHz      | 150                      | 1.20:1 —DC-500 MHz<br>1.35:1 —500-1000 MHz | 3.5                     | 8          |
| PPR & PPT 975-250-3  | DC-1.0 GHz      | 250                      | 1.25:1 —DC-500 MHz<br>1.35:1 —500-1000 MHz | 5.0                     | 9          |
| PPR & PPT 1250-400   | DC-500 MHz      | 400                      | 1.50:1 —DC-500 MHz                         | 7.0                     | 10         |
| PPR & PPT 1900-800   | DC-500 MHz      | 650                      | 1.25:1 —DC-200 MHz<br>1.50:1 —200-500 MHz  | 10.2                    | 11         |

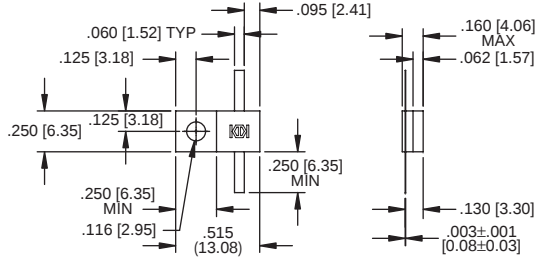
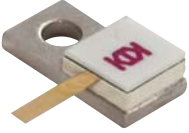
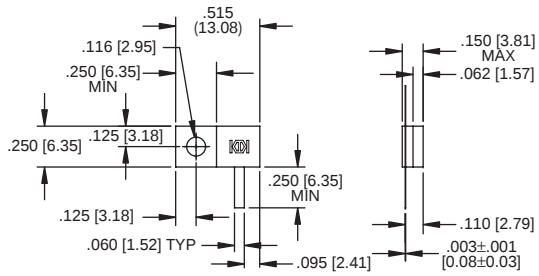
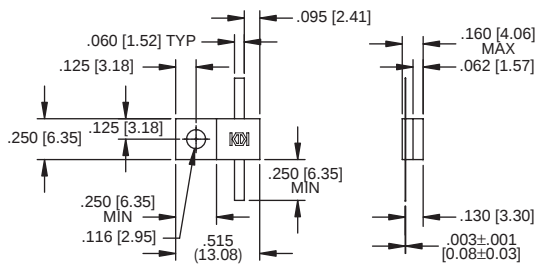
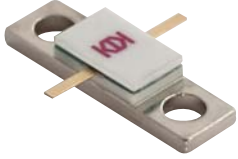
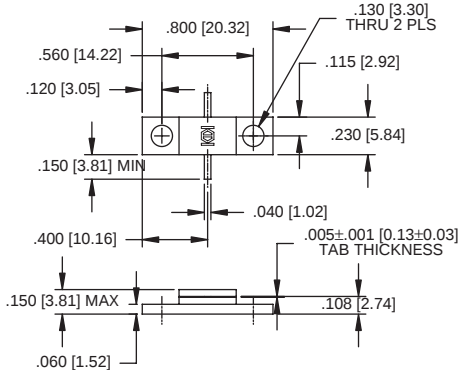
## PHYSICAL DIMENSIONS

| TERMINATIONS (PPT) SERIES                                                                                                               | RESISTORS (PPR) SERIES                                                                                                                  | FIGURES                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>PPT 300-10-3 — 10 WATTS</b><br>Flange Mounted<br> | <b>PPR 300-10-3 — 10 WATTS</b><br>Flange Mounted<br> | <b>FIG. 1</b><br> |
| <b>PMS 100 — 20 WATTS</b><br>Stud Mounted<br>        | <b>PMS 200 — 20 WATTS</b><br>Stud Mounted<br>        | <b>FIG. 2</b><br> |

KEY: Inches [Millimeters] .XX  $\pm .03$  .XXX  $\pm .010$  LX  $\pm 0.8$  .XX  $\pm 0.25$

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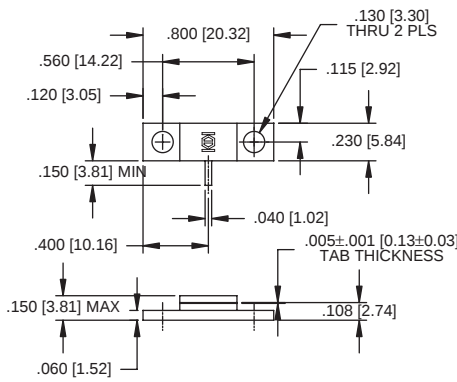
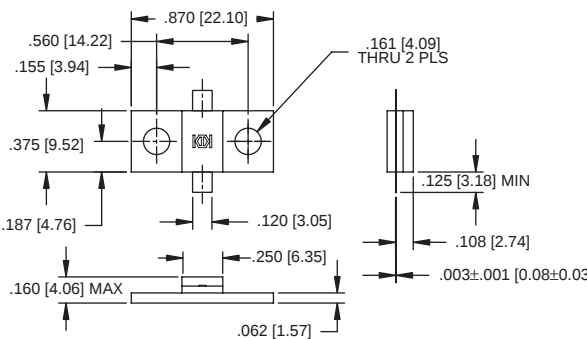
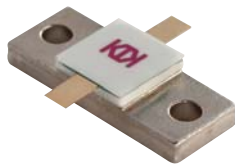
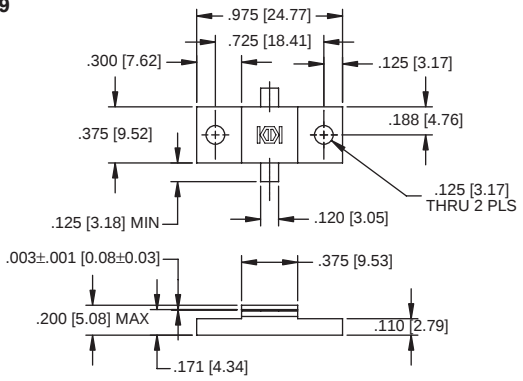
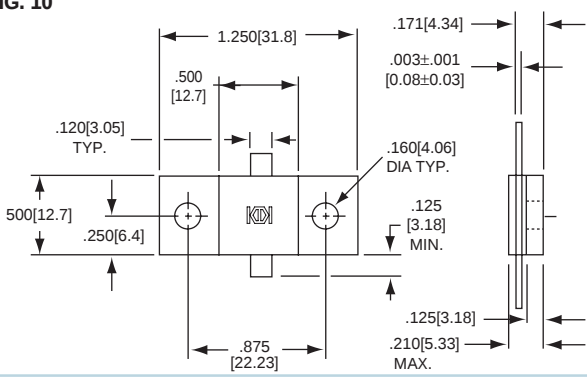
## PHYSICAL DIMENSIONS

| TERMINATIONS (PPT) SERIES                                                                                                                   | RESISTORS (PPR) SERIES                                                                                                                      | FIGURES                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>PPT 515-20-3</b> — 20 WATTS<br>Flange Mounted<br><br>   | <b>PPR 515-20-3</b> — 20 WATTS<br>Flange Mounted<br><br>   | <b>FIG. 3</b><br><br>   |
| <b>PPT 515-30-4</b> — 30 WATTS<br>Flange Mounted<br><br>  | <b>Offered as a<br/>Termination Only!</b>                                                                                                   | <b>FIG. 4</b><br><br>  |
| <b>PPT 515-30</b> — 30 WATTS<br>Flange Mounted<br><br>   | <b>PPR 515-30</b> — 30 WATTS<br>Flange Mounted<br><br>   | <b>FIG. 5</b><br><br> |
| <b>PPT 800-40-3</b> — 40 WATTS<br>Flange Mounted<br><br> | <b>PPR 800-40-3</b> — 40 WATTS<br>Flange Mounted<br><br> | <b>FIG. 6</b><br><br> |

KEY: Inches [Millimeters] .XX ±.03 .XXX ±.010 [X ±0.8 .XX ±0.25]

# SERIES PMS, PPR, PPT RESISTORS & TERMINATIONS

## PHYSICAL DIMENSIONS

| TERMINATIONS (PPT) SERIES                                                                                                                     | RESISTORS (PPR) SERIES                                                                                                                        | FIGURES                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>PPT 800-100A</b> — 100 WATTS<br>Flange Mounted<br><br>    | <b>Offered as a Termination Only!</b>                                                                                                         | <b>FIG. 7</b><br>    |
| <b>PPT 870-150-3</b> — 150 WATTS<br>Flange Mounted<br><br>  | <b>PPR 870-150-3</b> — 150 WATTS<br>Flange Mounted<br><br>  | <b>FIG. 8</b><br>   |
| <b>PPT 975-250-3</b> — 250 WATTS<br>Flange Mounted<br><br> | <b>PPR 975-250-3</b> — 250 WATTS<br>Flange Mounted<br><br> | <b>FIG. 9</b><br>  |
| <b>PPT 1250-400</b> — 400 WATTS<br>Flange Mounted<br><br>  | <b>PPR 1250-400</b> — 400 WATTS<br>Flange Mounted<br><br>  | <b>FIG. 10</b><br> |

KEY: Inches [Millimeters] .XX ±.03 .XXX ±.010 [X ±0.8 .XX ±0.25]

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## PHYSICAL DIMENSIONS

| TERMINATIONS (PPT) SERIES                         | RESISTORS (PPR) SERIES                            | FIGURES            |
|---------------------------------------------------|---------------------------------------------------|--------------------|
| <b>PPT 1900-800</b> — 650 WATTS<br>Flange Mounted | <b>PPR 1900-800</b> — 650 WATTS<br>Flange Mounted | <b>FIG. 11</b><br> |

KEY: Inches [Millimeters] .XX ±.03 .XXX ±.010 [X ±0.8 .XX ±0.25]