

# SERIES 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 RF 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.

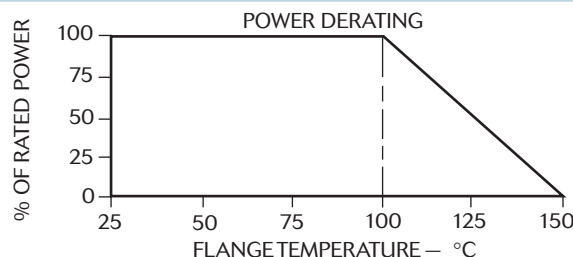
### NOTES

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.

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## AVERAGE POWER DERATING CURVE



## 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.

## 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
PPR & PPT 515-20-3*	DC-2.0 GHz	20	1.10:1 —DC-1.0 GHz 1.25:1 —1.0-2.0 GHz	0.8	2
PPT 515-30-4	DC-4.0 GHz	30	1.20:1 —DC-4.0 GHz	1.2	3
PPR & PPT 515-30*	DC-2.0 GHz	30	1.10:1 —DC-1.0 GHz 1.25:1 —1.0-2.0 GHz	0.8	4
PPR & PPT 800-40-3	DC-4.0 GHz	40	1.25:1 —DC-4.0 GHz	1.4	5
PPT 800-100A	DC-2.0 GHz	100	1.25:1 —DC-2.0 GHz	1.4	6
PPR & PPT 870-150-3*	DC-1.0 GHz	150	1.20:1 —DC-500 MHz 1.35:1 —500-1000 MHz	3.5	7
PPR & PPT 975-250-3	DC-1.0 GHz	250	1.25:1 —DC-500 MHz 1.35:1 —500-1000 MHz	5.0	8
PPR & PPT 1250-400	DC-500 MHz	400	1.50:1 —DC-500 MHz	7.0	9
PPR & PPT 1900-800	DC-500 MHz	650	1.25:1 —DC-200 MHz 1.50:1 —200-500 MHz	10.2	10

## PHYSICAL DIMENSIONS

### TERMINATIONS (PPT) SERIES

### RESISTORS (PPR) SERIES

### FIGURES

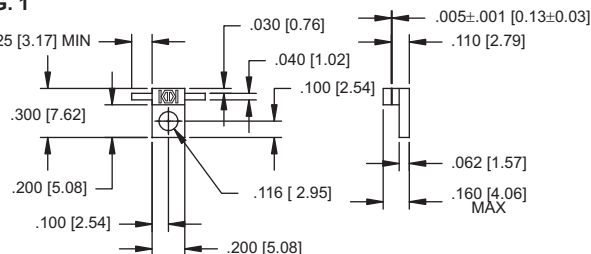
**PPT 300-10-3** — 10 WATTS  
Flange Mounted



**PPR 300-10-3** — 10 WATTS  
Flange Mounted



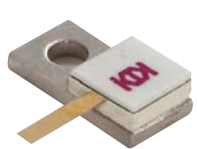
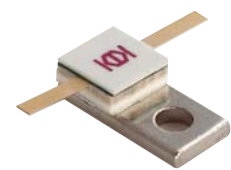
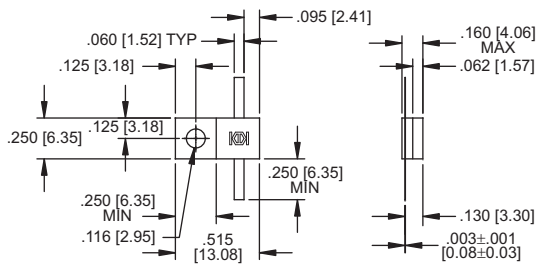

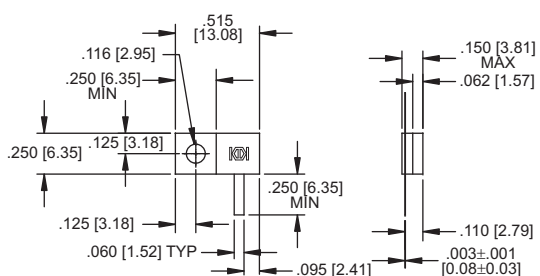
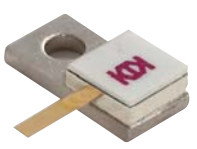
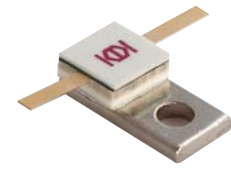
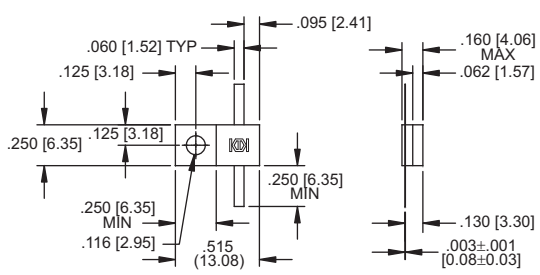

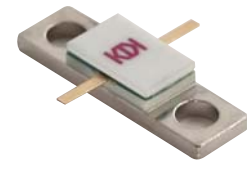
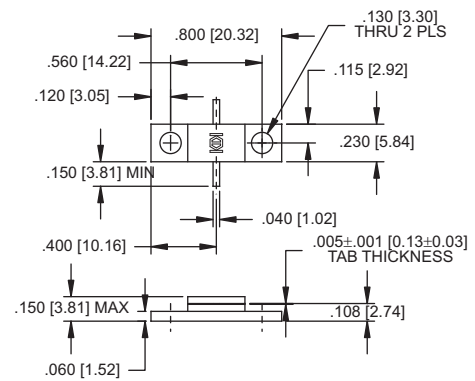
**FIG. 1**



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

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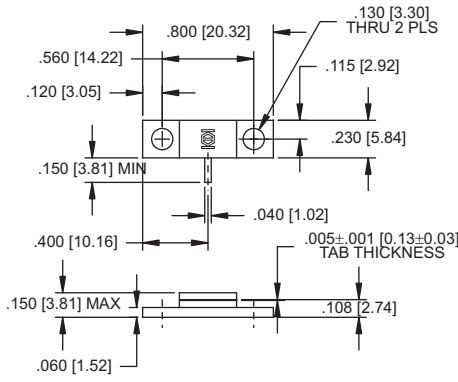

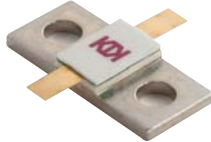
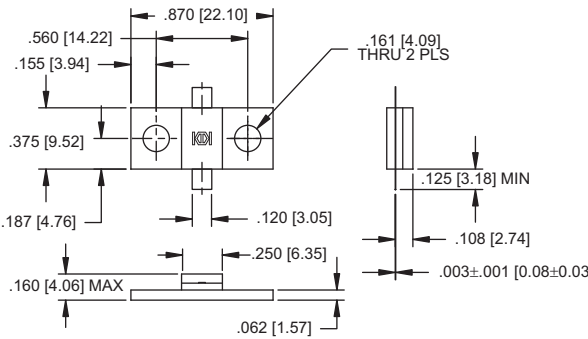
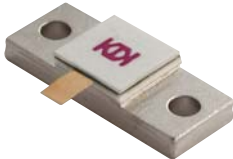

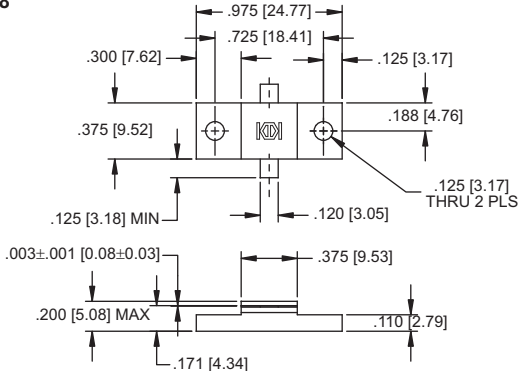


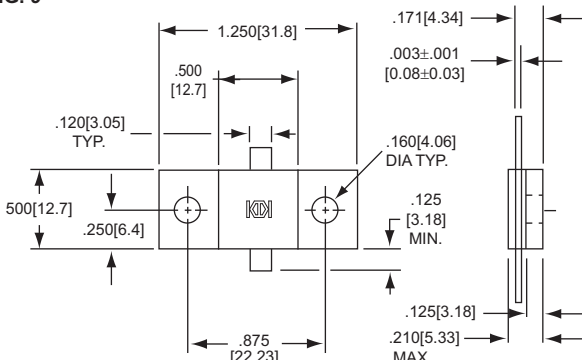
## PHYSICAL DIMENSIONS

TERMINATIONS (PPT) SERIES	RESISTORS (PPR) SERIES	FIGURES
<p><b>PPT 515-20-3</b> — 20 WATTS Flange Mounted</p> 	<p><b>PPR 515-20-3</b> — 20 WATTS Flange Mounted</p> 	<p><b>FIG. 2</b></p> 
<p><b>PPT 515-30-4</b> — 30 WATTS Flange Mounted</p> 	<p><i>Offered as a Termination Only!</i></p>	<p><b>FIG. 3</b></p> 
<p><b>PPT 515-30</b> — 30 WATTS Flange Mounted</p> 	<p><b>PPR 515-30</b> — 30 WATTS Flange Mounted</p> 	<p><b>FIG. 4</b></p> 
<p><b>PPT 800-40-3</b> — 40 WATTS Flange Mounted</p> 	<p><b>PPR 800-40-3</b> — 40 WATTS Flange Mounted</p> 	<p><b>FIG. 5</b></p> 

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

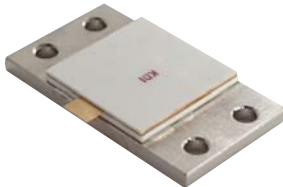
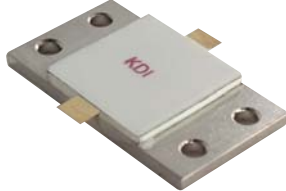
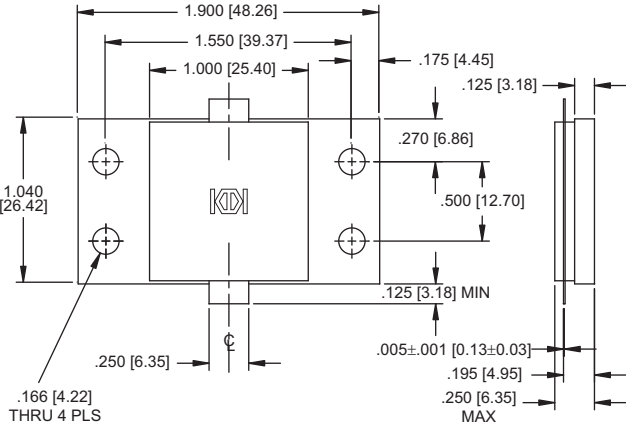
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TERMINATIONS (PPT) SERIES	RESISTORS (PPR) SERIES	FIGURES
<p><b>PPT 800-100A</b> — 100 WATTS Flange Mounted</p> 	<p><i>Offered as a Termination Only!</i></p>	<p><b>FIG. 6</b></p> 
<p><b>PPT 870-150-3</b> — 150 WATTS Flange Mounted</p> 	<p><b>PPR 870-150-3</b> — 150 WATTS Flange Mounted</p> 	<p><b>FIG. 7</b></p> 
<p><b>PPT 975-250-3</b> — 250 WATTS Flange Mounted</p> 	<p><b>PPR 975-250-3</b> — 250 WATTS Flange Mounted</p> 	<p><b>FIG. 8</b></p> 
<p><b>PPT 1250-400</b> — 400 WATTS Flange Mounted</p> 	<p><b>PPR 1250-400</b> — 400 WATTS Flange Mounted</p> 	<p><b>FIG. 9</b></p> 

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PHYSICAL DIMENSIONS		
TERMINATIONS (PPT) SERIES	RESISTORS (PPR) SERIES	FIGURES
<p><b>PPT 1900-800</b> — 650 WATTS Flange Mounted</p> 	<p><b>PPR 1900-800</b> — 650 WATTS Flange Mounted</p> 	<p><b>FIG. 10</b></p>  <p>Technical drawing showing dimensions for the resistor assembly. Key dimensions include: overall width 1.900 [48.26], distance from center to top edge 1.550 [39.37], distance from center to bottom edge 1.000 [25.40], distance from center to right edge .175 [4.45], distance from center to right edge .125 [3.18], distance from center to right edge .270 [6.86], distance from center to right edge .500 [12.70], distance from center to right edge .125 [3.18] MIN, distance from center to right edge .005±.001 [0.13±0.03], distance from center to right edge .195 [4.95], distance from center to right edge .250 [6.35] MAX, distance from center to right edge .166 [4.22] THRU 4 PLS, distance from center to right edge .250 [6.35], distance from center to right edge 1.040 [26.42].</p>

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