

# Radar Pulsed Power Module, 140W, 300 $\mu$ s, 10% Duty 2.7 - 3.1 GHz

## PHA2731-140L

V4.00

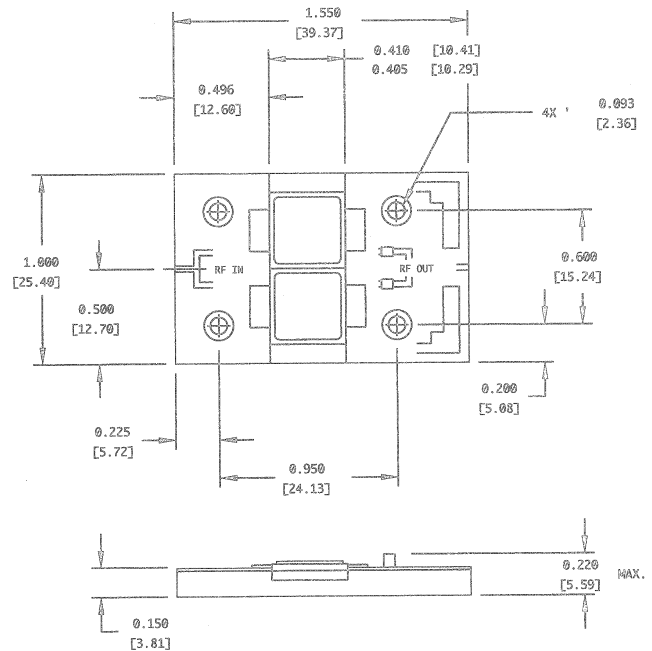
### Features

- NPN Silicon Power Transistors
- Input and Output Matched to 50 $\Omega$
- Duroid Circuit Board
- Easily Combined For High Power Transmitters
- Plated Copper Flange

### Absolute Maximum Ratings at 25°C<sup>1</sup>

Parameter	Absolute Maximum
Supply Voltage	40V
Input Power	35W
Output Power	200W
Thermal Resistance	0.4°C/W
Power Dissipation	380W
Operating Case Temp.	-30 to +100°C
Storage Temperature	-40 to +125°C

1. Operation of this device outside any of these limits may cause permanent damage.



Unless Otherwise Noted, Tolerances Are:  
Inches -0.005" (Millimeters -0.13mm)

### Electrical Characteristics at 25°C

Parameter	Symbol	Test Conditions	Units	Min.	Max.
Output Power	P <sub>OUT</sub>	V <sub>CC</sub> =36 V, P <sub>IN</sub> =28 W, F=2.70, 2.90, 3.10 GHz	W	140	-
Power Gain	G <sub>P</sub>	V <sub>CC</sub> =36 V, P <sub>OUT</sub> =140 W, F=2.70, 2.90, 3.10 GHz	dB	7	-
Collector Efficiency	$\eta_C$	V <sub>CC</sub> =36 V, P <sub>OUT</sub> =140 W, F=2.70, 2.90, 3.10 GHz	%	35	-
Input VSWR	VSWR	V <sub>CC</sub> =36 V, P <sub>OUT</sub> =140 W, F=2.70, 2.90, 3.10 GHz	-	-	2:1
Load VSWR Tolerance	VSWR-T	V <sub>CC</sub> =36 V, P <sub>OUT</sub> =140 W, F=2.70, 2.90, 3.10 GHz	-	-	2:1
Load VSWR for Stability	VSWR-S	V <sub>CC</sub> =36 V, P <sub>OUT</sub> =140 W, F=2.70, 2.90, 3.10 GHz	-	-	1.5:1
Pulse Droop	Dp	V <sub>CC</sub> =36 V, P <sub>OUT</sub> =140 W, F=2.70, 2.90, 3.10 GHz	dB	-	1

Specifications Subject to Change Without Notice.

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