

Radar Pulsed Power Module, 115, 130, 145W, 100 μ s Pulse 3.1 - 3.5 GHz

PHA3135-130M

V4.00

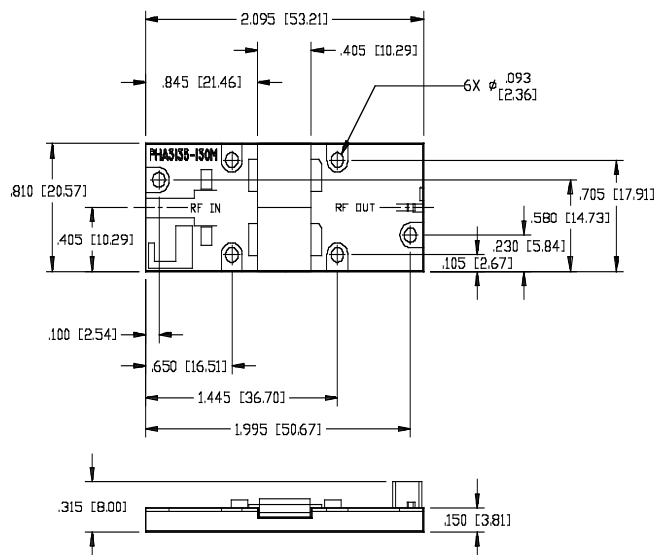
Features

- NPN Silicon Power Transistor
- Input and Output Matched to 50 Ω
- Duroid Circuit Board
- Easily Combined for High Power Transmitters
- Plated Copper Flange

Absolute Maximum Ratings at 25°C¹

| Parameter | Absolute Maximum |
|-------------------------------------|------------------|
| Supply Voltage | 40V |
| Input Power | 26.5W |
| Output Power @ 3.3 GHz | 200W |
| Thermal Resistance / Per Transistor | 0.24A |
| Power Dissipation | 400W |
| Operating Case Temp. | -30 to 1200°C |
| Storage Temperature | -40 to +125°C |

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



Unless Otherwise Noted, Tolerances Are: Inches \pm .005"
(Millimeters \pm 13mm)

Electrical Characteristics at 25°C

| Parameter | Symbol | Test Conditions | Units | Min. | Max. |
|----------------------|------------------|---|-------|------|------|
| Output Power | P _{OUT} | V _{CC} =36 V, P _{IN} =21 W, F=3.1 GHz | W | 145 | - |
| Output Power | P _{OUT} | V _{CC} =36 V, P _{IN} =21 W, F=3.3 GHz | W | 130 | - |
| Output Power | P _{OUT} | V _{CC} =36 V, P _{IN} =21 W, F=3.5 GHz | W | 115 | - |
| Power Gain | G _P | V _{CC} =36 V, P _{IN} =21 W, F=3.1 GHz | dB | 8.4 | - |
| Power Gain | G _P | V _{CC} =36 V, P _{IN} =21 W, F=3.3 GHz | dB | 7.9 | - |
| Power Gain | G _P | V _{CC} =36 V, P _{IN} =21 W, F=3.5 GHz | dB | 7.4 | - |
| Collector Efficiency | η_C | V _{CC} =36 V, P _{IN} =21 W, F=3.1, 3.3, 3.5 GHz | % | 35 | - |
| Input Return Loss | RL | V _{CC} =36 V, P _{IN} =21 W, F=3.1, 3.3, 3.5 GHz | dB | 6 | - |
| Load VSWR Tolerance | VSWR-T | V _{CC} =36 V, P _{IN} =21 W, F=3.1, 3.3, 3.5 GHz | - | - | 3:1 |
| Load VSWR Stability | VSWR-S | V _{CC} =36 V, P _{IN} =21 W, F=3.1, 3.3, 3.5 GHz | - | - | 2:1 |

Specifications Subject to Change Without Notice.

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