

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

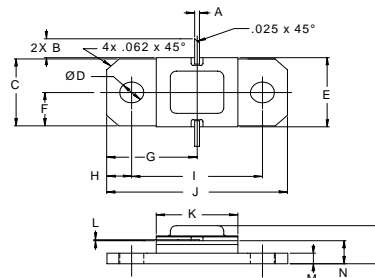
The **ASI AVF250** is a high power Class-C transistor designed for IFF/BME/TACAN applications in 1025-1150 MHz range.

FEATURES:

- 50 V operation
- Internal Input/Output Matching Networks
- $P_G = 8.0$ dB at 250 W/1090 MHz
- **Omnigold™** Metalization System
- 5:1 VSWR capability

MAXIMUM RATINGS

| | |
|---------------|-----------------------|
| I_C | 20 A |
| V_{CC} | 50 V |
| P_{DISS} | 575 W @ $T_C = 25$ °C |
| T_J | -65 °C to +250 °C |
| T_{STG} | -65 °C to +200 °C |
| θ_{JC} | 0.28 °C/W |

PACKAGE STYLE .400 2NL FLG


| DIM | MINIMUM inches / mm | MAXIMUM inches / mm |
|-----|------------------------|------------------------|
| A | .020 / 0.51 | .030 / 0.76 |
| B | .100 / 2.54 | |
| C | .376 / 9.55 | .396 / 10.06 |
| D | .110 / 2.79 | .130 / 3.30 |
| E | .395 / 10.03 | .407 / 10.34 |
| F | | .193 / 4.90 |
| G | | .450 / 11.43 |
| H | | .125 / 3.18 |
| I | .640 / 16.26 | .660 / 16.76 |
| J | .890 / 22.61 | .910 / 23.11 |
| K | .395 / 10.03 | .415 / 10.54 |
| L | .004 / 0.10 | .007 / 0.18 |
| M | .052 / 1.32 | .072 / 1.83 |
| N | .118 / 3.00 | .131 / 3.33 |
| P | | .230 / 5.84 |

ORDER CODE: ASI10571
CHARACTERISTICS $T_C = 25$ °C

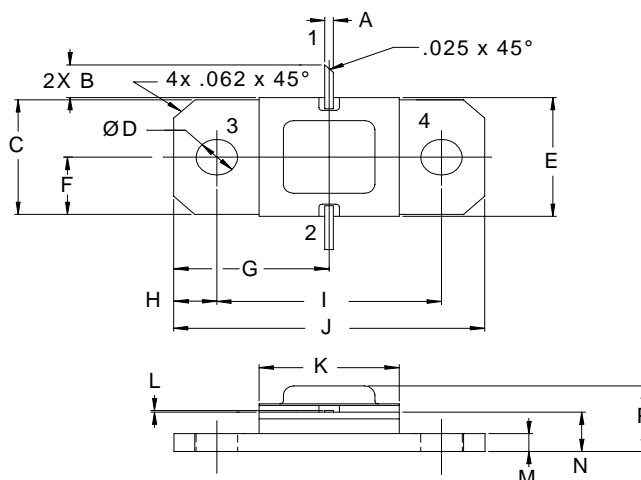
| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|---|---------|---------|---------|-------|
| BV_{CBO} | $I_C = 35$ mA | 65 | | | V |
| BV_{CES} | $I_C = 25$ mA | 60 | | | V |
| BV_{EBO} | $I_E = 15$ mA | 4.0 | | | V |
| I_{CES} | $V_{CE} = 50$ V | | | 20 | mA |
| h_{FE} | $V_{CE} = 5.0$ V $I_C = 1.0$ A | 10 | | 200 | --- |
| P_G | $V_{CC} = 50$ V $P_{OUT} = 250$ W $f = 1030 - 1090$ MHz | 8.5 | | | dB |
| η_c | $P_{IN} = 40$ W | 38 | | | % |

Pulse Width = 20 μ s, Duty Cycle = 5 %

IMPEDANCE DATA

| FREQ | Z _{IN} (Ω) | Z _{CL} (Ω) |
|------|---------------------|---------------------|
| 960 | 1.0 + j3.5 | 1.9 - j1.8 |
| 1090 | 4.0 + j3.5 | 1.6 - j0.9 |
| 1215 | 2.2 + j2.2 | 1.4 - j1.1 |

 P_{IN} = 40 W

 V_{CE} = 50 V


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1 = Collector

2 = Base

3 & 4 = Emitter