

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

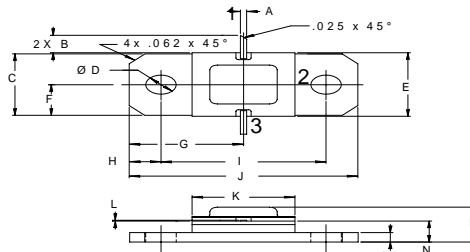
The **ASI MSC81250M** is Designed for DME/TACAN Applications up to 1150 MHz.

FEATURES:

- Internal Input/Output Matching Networks
- $P_G = 6.2$ dB at 250 W/1150 MHz
- **Omnigold™** Metalization System

MAXIMUM RATINGS

| | |
|---------------|-------------------------------|
| I_C | 17.8 A |
| V_{CC} | 55 V |
| P_{DISS} | 600 W @ $T_C \leq 80^\circ C$ |
| T_J | -65 °C to +250 °C |
| T_{STG} | -65 °C to +200 °C |
| θ_{JC} | 0.2 °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 |

1 = Collector 2 = Base 3 = Emitter

CHARACTERISTICS $T_C = 25^\circ C$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|--|---------|---------|---------|-------|
| BV_{CBO} | $I_C = 10$ mA | 65 | | | V |
| BV_{CER} | $I_C = 25$ mA $R_{BE} = 10 \Omega$ | 65 | | | V |
| BV_{EBO} | $I_E = 1.0$ mA | 3.5 | | | V |
| I_{CES} | $V_{CE} = 50$ V | | | 25 | mA |
| h_{FE} | $V_{CE} = 5.0$ V $I_C = 1.0$ A | 15 | | 120 | --- |
| P_G | $V_{CC} = 50$ V $P_{IN} = 250$ W $f = 1025 - 1150$ MHz | 6.2 | 6.5 | | dB |
| η_c | | 40 | 38 | | % |
| P_{OUT} | | 250 | 270 | | W |