

SILICON NPN RF POWER TRANSISTOR

DESCRIPTION:

The **ASI MRF264** is Designed for Class C VHF Mobile Radio Power Amplifier Applications Operating at 12.5 Volts.

FEATURES:

- $P_{OUT} = 30\text{ W Min. @ } 175\text{ MHz}$
- Gold Metalization
- Economical **TO-220 CE** Package

MAXIMUM RATINGS

| | |
|---------------|--|
| I_C | 6.0 A |
| V_{CE} | 16 V |
| P_{DISS} | 80 W @ $T_C = 25^\circ\text{C}$ |
| T_J | $-65^\circ\text{C to } +200^\circ\text{C}$ |
| T_{STG} | $-65^\circ\text{C to } +150^\circ\text{C}$ |
| θ_{JC} | 1.6 $^\circ\text{C/W}$ |

PACKAGE STYLE TO-220

| | DIMENSIONS | | | |
|---|------------|------|------------|-------|
| | mm | | inches | |
| | min | max | min | max |
| A | 10 | 10.4 | 0.393 | 0.409 |
| B | 15.2 | 15.9 | 0.598 | 0.626 |
| C | 12.7 | 13.7 | 0.500 | 0.539 |
| D | 6.2 | 6.6 | 0.244 | 0.260 |
| E | 4.4 | 4.6 | 0.173 | 0.181 |
| F | 3.5 | 5.5 | 0.137 | 0.216 |
| G | 2.65 | 2.95 | 0.104 | 0.116 |
| H | 17.6 typ. | | 0.692 typ. | |
| L | 1.14 | 1.7 | 0.044 | 0.067 |
| M | 3.75 | 3.85 | 0.147 | 0.151 |
| N | 1.23 | 1.32 | 0.048 | 0.051 |
| P | 0.41 | 0.64 | 0.016 | 0.025 |
| R | 2.4 | 2.72 | 0.094 | 0.107 |
| S | 4.95 | 5.15 | 0.194 | 0.203 |
| T | 2.4 | 2.7 | 0.094 | 0.106 |
| U | 0.61 | 0.94 | 0.024 | 0.037 |

1 = BASE 2 = EMITTER 3 = COLLECTOR
MOUNTING TAB = EMITTER

CHARACTERISTICS $T_C = 25^\circ\text{C}$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|---|---------|---------|---------|-------|
| BV_{CEO} | $I_C = 20\text{ mA}$ | 16 | | | V |
| BV_{CES} | $I_C = 20\text{ mA}$ | 36 | | | V |
| BV_{EBO} | $I_E = 5.0\text{ mA}$ | 4.0 | | | V |
| I_{CBO} | $V_{CB} = 15\text{ V}$ | | | 5.0 | mA |
| h_{FE} | $V_{CE} = 5.0\text{ V}$ $I_C = 500\text{ mA}$ | 20 | 50 | | --- |
| C_{OB} | $V_{CB} = 15\text{ V}$ $f = 1.0\text{ MHz}$ | | | 20 | pF |
| P_G | $V_{CE} = 12.5\text{ V}$ $P_{OUT} = 30\text{ W}$ $f = 175\text{ MHz}$ | 5.2 | | | dB |
| η_c | | 60 | | | % |