

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **MRF314** is Designed for Class C Power Amplifier Applications up to 200 MHz.

FEATURES:

- $P_G = 10$ dB min. at 30 W/ 150 MHz
- Withstands **30:1** Load VSWR
- **Omnigold™** Metalization System

MAXIMUM RATINGS

| | |
|---------------|---------------------------|
| I_C | 3.4 A |
| V_{CB0} | 65 V |
| V_{CEO} | 35 V |
| V_{EBO} | 4.0 V |
| P_{DISS} | 82 W @ $T_C = 25^\circ C$ |
| T_J | -65 °C to +200 °C |
| T_{STG} | -65 °C to +150 °C |
| θ_{JC} | 2.13 °C/W |

PACKAGE STYLE .380 4L FLG

| | MINIMUM DIMENSIONS | MAXIMUM DIMENSIONS |
|---|-----------------------|-----------------------|
| A | 208±0.25 | 210±0.25 |
| B | 385±0.25 | |
| C | 178±0.25 | 178±0.25 |
| D | 370±0.25 | 368±0.25 |
| E | 385±0.25 | 385±0.25 |
| F | 304±0.25 | 304±0.25 |
| G | 385±0.25 | 375±0.25 |
| H | 180±0.25 | 180±0.25 |
| I | | 280±0.25 |
| J | 242±0.25 | 235±0.25 |

ORDER CODE: ASI10872

CHARACTERISTICS $T_C = 25^\circ C$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|--|--|---------|---------|-------|
| BV_{CEO} | $I_C = 30$ mA | 35 | | | V |
| BV_{CES} | $I_C = 30$ mA | 65 | | | V |
| BV_{EBO} | $I_E = 3.0$ mA | 4.0 | | | V |
| I_{CBO} | $V_E = 30$ V | | | 3.0 | mA |
| h_{FE} | $V_{CE} = 5.0$ V $I_C = 1.5$ A | 20 | | 80 | --- |
| C_{OB} | $V_{CB} = 30$ V $f = 1.0$ MHz | | 30 | 40 | pF |
| P_G | $V_{CC} = 28$ V $P_{OUT} = 30$ W $f = 150$ MHz | 10 | 13.5 | | dB |
| η_c | | 50 | | | % |
| ψ | | 30:1 all phase angles, no degradation in output. | | | |