

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI ALR060** is Designed for 1200 – 1400 MHz, L-Band Applications.

FEATURES:

- Internal Input/Output Matching Network
- $P_G = 6.5$ dB at 60 W/1400 MHz
- **Omnigold™** Metalization System

MAXIMUM RATINGS

| | |
|---------------|-----------------------|
| I_C | 5.0 A |
| V_{CC} | 32 V |
| P_{DISS} | 107 W @ $T_C = 25$ °C |
| T_J | -65 °C to +250 °C |
| T_{STG} | -65 °C to +200 °C |
| θ_{JC} | 1.4 °C/W |

PACKAGE STYLE .310 2L FLG

| DIM | MINIMUM inches / mm | MAXIMUM inches / mm |
|-----|------------------------|------------------------|
| A | .095 / 2.41 | .105 / 2.67 |
| B | .100 / 2.54 | .120 / 3.05 |
| C | .050 / 1.27 | |
| D | .286 / 7.26 | .306 / 7.77 |
| E | .110 / 2.79 | .130 / 3.30 |
| F | .306 / 7.77 | .318 / 8.08 |
| G | | .148 / 3.76 |
| H | | .400 / 10.16 |
| I | | .119 / 3.02 |
| J | .552 / 14.02 | .572 / 14.53 |
| K | .790 / 20.07 | .810 / 20.57 |
| L | .300 / 7.62 | .320 / 8.13 |
| M | .003 / 0.08 | .006 / 0.15 |
| N | .052 / 1.32 | .072 / 1.83 |
| P | .118 / 3.00 | .131 / 3.33 |
| R | | .230 / 5.84 |

ORDER CODE: ASI10513

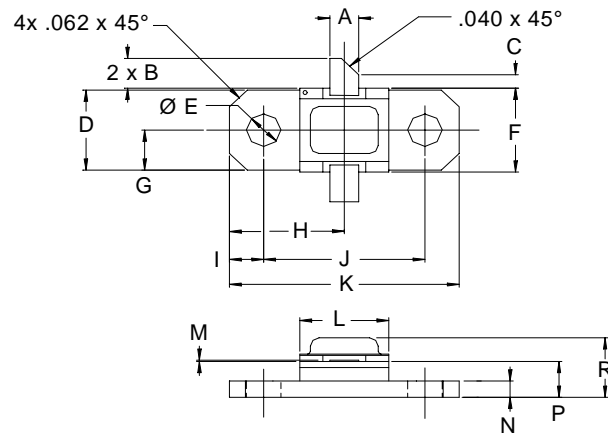
CHARACTERISTICS $T_C = 25$ °C

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|---|---------|---------|---------|-------|
| BV_{CBO} | $I_C = 20$ mA | 55 | | | V |
| BV_{CER} | $I_C = 40$ mA $R_{BE} = 10$ Ω | 55 | | | V |
| BV_{EBO} | $I_E = 2$ mA | 3.5 | | | V |
| I_{CES} | $V_{CE} = 28$ V | | | 10 | mA |
| h_{FE} | $V_{CE} = 5.0$ V $I_C = 2.0$ A | 15 | | 150 | --- |
| P_G | $V_{CC} = 28$ V $P_{OUT} = 60$ W $f = 1.2$ to 1.4 GHz | 6.5 | | | dB |
| η_c | | 50 | | | % |

IMPEDANCE DATA.

| FREQ | $Z_{IN}(\Omega)$ | $Z_{CL}(\Omega)$ |
|---------|------------------|------------------|
| 1.2 GHz | $6.0 + j10$ | $7.0 - j10$ |
| 1.3 GHz | $4.5 + j11$ | $6.0 - j9.5$ |
| 1.4 GHz | $4.0 + j9.0$ | $5.0 - j9.0$ |

$P_{IN} = 12 \text{ W}$
 $V_{CC} = 28 \text{ V}$



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