

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

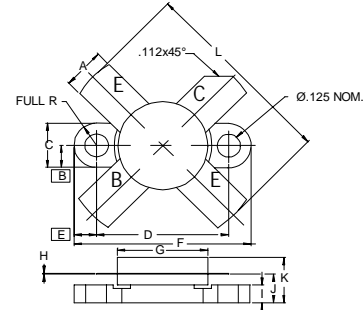
The **ASI SD1407** is a class AB common Emitter Transistor Designed for broadband amplifier operations up to 30 MHz.

FEATURES:

- $P_G = 15$ dB min. at 125 W/30 MHz
- High linear power output
- $IMD_3 = -30$ dBc max. at 125 W(PEP)
- **Omnigold™** Metalization System

MAXIMUM RATINGS

| | |
|---------------|-----------------------|
| I_C | 20 A |
| V_{CBO} | 65 V |
| V_{CEO} | 36 V |
| V_{EBO} | 4.0 V |
| P_{DISS} | 270 W @ $T_C = 25$ °C |
| T_J | -65 °C to +200 °C |
| T_{STG} | -65 °C to +150 °C |
| θ_{JC} | 0.65 °C/W |

PACKAGE STYLE .500 4L FLG


| DIM | MINIMUM inches / mm | MAXIMUM inches / mm |
|-----|------------------------|------------------------|
| A | .220 / 5.59 | .230 / 5.84 |
| B | .125 / 3.18 | |
| C | .245 / 6.22 | .255 / 6.48 |
| D | .720 / 18.28 | .730 / 18.54 |
| E | .125 / 3.18 | |
| F | .970 / 24.64 | .980 / 24.89 |
| G | .495 / 12.57 | .505 / 12.83 |
| H | .003 / 0.08 | .007 / 0.18 |
| I | .090 / 2.29 | .110 / 2.79 |
| J | .150 / 3.81 | .175 / 4.45 |
| K | .280 / 7.11 | |
| L | .980 / 24.89 | 1.050 / 26.67 |

CHARACTERISTICS $T_C = 25$ °C

| SYMBOL | TEST CONDITIONS | | | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|------------------|-------------------|--------------|---------|---------|---------|-------|
| BV_{CEO} | $I_C = 100$ mA | | | 35 | | | V |
| BV_{CES} | $I_C = 100$ mA | | | 65 | | | V |
| BV_{CBO} | $I_C = 100$ mA | | | 65 | | | |
| BV_{EBO} | $I_E = 10$ mA | | | 4.0 | | | V |
| I_{CES} | $V_{CE} = 30$ V | | | | | 15 | mA |
| h_{FE} | $V_{CE} = 5.0$ V | $I_C = 5.0$ A | | 10 | | 200 | --- |
| C_{ob} | $V_{CB} = 30$ V | $f = 1.0$ MHz | | --- | 250 | --- | pF |
| G_P | $V_{CE} = 28$ V | $P_{IN} = 3.95$ W | $f = 30$ MHz | 15 | 16 | | dB |
| IMD_3 | $V_{CE} = 28$ V | $I_{CQ} = 100$ mA | $f = 30$ MHz | | -34 | -30 | dBc |