

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

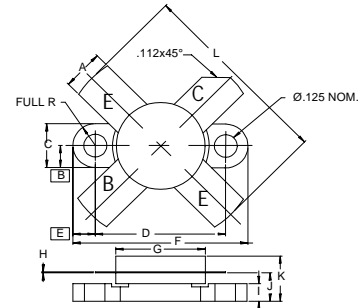
The **ASI HF150-50S** is a 50 V epitaxial transistor designed for SSB communications. The device utilizes emitter ballasting for ruggedness.

FEATURES:

- $P_G = 14$ dB min. at 150 W/30 MHz
- $IMD_3 = 100$ dBc max. at 150 W(PEP)
- **Omnigold™** Metalization System
- Common Emitter configuration

MAXIMUM RATINGS

| | |
|---------------|-----------------------|
| I_C | 10 A |
| V_{CBO} | 110 V |
| V_{CEO} | 55 V |
| V_{EBO} | 4.0 V |
| P_{DISS} | 233 W @ $T_C = 25$ °C |
| T_J | -65 °C to +200 °C |
| T_{STG} | -65 °C to +150 °C |
| θ_{JC} | 0.75 °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 |

ORDER CODE: ASI10612
CHARACTERISTICS $T_C = 25$ °C

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|--|---------|---------|---------|-------|
| BV_{CBO} | $I_C = 100$ mA | 110 | | | V |
| BV_{CES} | $I_C = 100$ mA | 110 | | | V |
| BV_{CEO} | $I_C = 100$ mA | 55 | | | V |
| BV_{EBO} | $I_E = 10$ mA | 4.0 | | | V |
| I_{CEO} | $V_{CE} = 30$ V | | | 5 | mA |
| I_{CES} | $V_{CE} = 60$ V | | | 5 | mA |
| h_{FE} | $V_{CE} = 6$ V $I_C = 1.4$ A | 18 | | 43.5 | --- |
| C_{ob} | $V_{CB} = 50$ V $f = 1.0$ MHz | | | 220 | pF |
| G_p | | 14 | | | dB |
| IMD_3 | $V_{CE} = 50$ V $I_{CQ} = 100$ mA $P_{OUT} = 150$ W(PEP) | | | -30 | dBc |
| η_c | $f_1 = 30.000$ MHz $f_2 = 30.001$ MHz | 37 | | | % |