

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

BLW87 is Designed for

Class C, 12.5 V High Band Applications
up to 175 MHz.

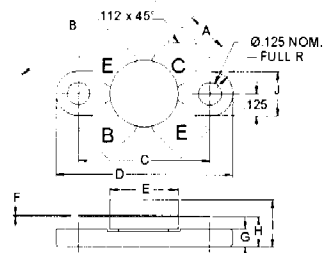
FEATURES:

- Common Emitter
- $P_G = 10$ dB at 25 W/175 MHz
- **Omnigold™** Metalization System

MAXIMUM RATINGS

| | |
|---------------|---------------------------------|
| I_C | 4.0 A |
| V_{CBO} | 36 V |
| V_{CEO} | 18 V |
| V_{EBO} | 4.0 V |
| P_{DISS} | 65 W @ $T_C = 25^\circ C$ |
| T_J | $-65^\circ C$ to $+200^\circ C$ |
| T_{STG} | $-65^\circ C$ to $+150^\circ C$ |
| θ_{JC} | 3.5 $^\circ C/W$ |

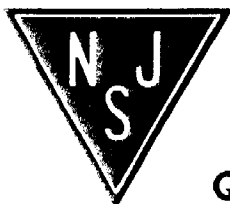
PACKAGE STYLE .380 4L FLG



| DIM | MINIMUM inches / mm | MAXIMUM inches / mm |
|-----|------------------------|------------------------|
| A | .220 / 5.58 | .230 / 5.84 |
| B | .785 / 19.94 | |
| C | .720 / 18.29 | .730 / 18.54 |
| D | .970 / 24.64 | .980 / 24.89 |
| E | | .385 / 9.78 |
| F | .004 / 0.10 | .006 / 0.15 |
| G | .085 / 2.16 | .105 / 2.67 |
| H | .160 / 4.06 | .180 / 4.57 |
| I | | .280 / 7.11 |
| J | .240 / 6.10 | .255 / 6.48 |

CHARACTERISTICS $T_C = 25^\circ C$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-------------------|--|---------|---------|---------|---------|
| BV_{CEO} | $I_C = 50$ mA | 18 | | | V |
| BV_{CES} | $I_C = 15$ mA | 36 | | | V |
| BV_{EBO} | $I_E = 5.0$ mA | 4.0 | | | V |
| I_{CBO} | $V_{CB} = 15$ V | | | 5.0 | mA |
| h_{FE} | $V_{CE} = 5.0$ V $I_C = 250$ mA | 20 | | --- | --- |
| C_{OB} | $V_{CB} = 12.5$ V $f = 1.0$ MHz | | | 110 | pF |
| P_G η_c | $V_{CE} = 12.5$ V $P_{OUT} = 25$ W $f = 175$ MHz | 10 | 60 | | dB % |



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IMPEDANCE DATA

| FREQ | $Z_{IN} (\Omega)$ | $Z_{CL} (\Omega)$ |
|---------|-------------------|-------------------|
| 160 MHz | $1.0 + j0.4$ | $2.3 + j0.1$ |

 $P_{IN} = 3.0 \text{ W}$ $V_{CE} = 12.5 \text{ V}$