

BLV25

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

BLV25 is a 28 V silicon NPN power transistor designed primarily for VHF FM broadcast transmitters.

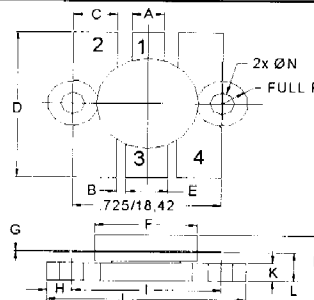
FEATURES:

- 28 V operation
- $P_G = 1.0$ dB at 175 W/108 MHz
- **Omnigold™** Metalization System
- Diffused Ballast Resistors

MAXIMUM RATINGS

| | |
|---------------|---------------------------------|
| I_C | 17.5 A |
| V_{CESM} | 65 V |
| V_{CEO} | 33 V |
| V_{EBO} | 4.0 V |
| P_{DISS} | 220 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} | 0.80 $^\circ C/W$ |

PACKAGE STYLE .500 6L FLG



| DIM | MINIMUM Inches / mm | MAXIMUM Inches / mm |
|-----|------------------------|------------------------|
| A | .150 / 3.43 | .160 / 4.06 |
| B | | .045 / 1.14 |
| C | .210 / 5.33 | .220 / 5.59 |
| D | .835 / 21.21 | .865 / 21.97 |
| E | .200 / 5.08 | .210 / 5.33 |
| F | .490 / 12.45 | .510 / 12.95 |
| G | .003 / 0.08 | .007 / 0.18 |
| H | | .125 / 3.18 |
| I | | .725 / 18.42 |
| J | .970 / 24.64 | .980 / 24.89 |
| K | .090 / 2.29 | .105 / 2.67 |
| L | .150 / 3.81 | .170 / 4.32 |
| M | | .285 / 7.24 |
| N | .120 / 3.05 | .135 / 3.43 |

1 = COLLECTOR 2&4 = EMITTER 3 = BASE

CHARACTERISTICS $T_C = 25^\circ C$

| SYMBOL | TEST CONDITIONS | | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-------------|-----------------|-------------------|---------|---------|---------|-------|
| BV_{CES} | $I_C = 50$ mA | | 65 | | | V |
| BV_{CEO} | $I_C = 200$ mA | | 33 | | | V |
| BV_{EBO} | $I_E = 20$ mA | | 4.0 | | | V |
| I_{CES} | $V_{CE} = 33$ V | | | | 25 | mA |
| h_{FE} | $V_{CE} = 25$ V | $I_C = 8.5$ A | 15 | | 100 | --- |
| V_{CEsat} | $I_C = 20$ A | $I_C = 4.0$ A | | 1.6 | | V |
| C_c | $V_{CB} = 25$ V | $f = 1.0$ MHz | | 275 | | pF |
| P_G | $V_{CC} = 28$ V | $P_{OUT} = 175$ W | 10 | | | dB |
| η_c | | | 65 | | | % |

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