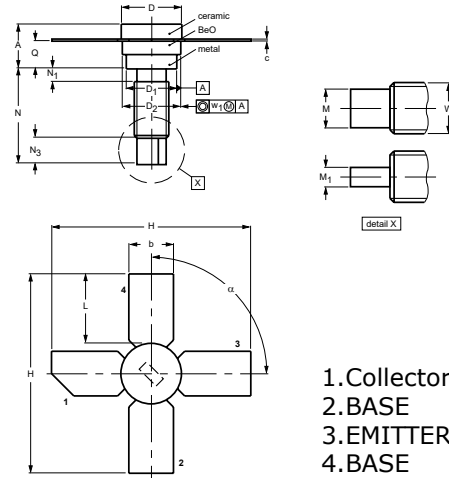


## DESCRIPTION

Designed for Class B and C common base amplifier applications in short pulse TACAN, IFF, and DME transmitters.

## FEATURES

- Specified 35V, 1090MHz Characteristics
- $P_o = 4W$  PEP@35V, 1090MHz
- $G_p = 10$  dB (Min) @35V, 1090MHz
- VSWR = 10:1
- Omnigold™ Metalization System



## DIMENSIONS

NOTE: ALL ELECTRODES ARE ISOLATED FROM FLANGE.

| UNIT | A            | b            | c            | D            | D <sub>1</sub> | D <sub>2</sub> | H              | L            | M <sub>1</sub> | M            | N              | N <sub>1</sub> max. | N <sub>3</sub> | Q            | W           | w <sub>1</sub> | $\alpha$ |
|------|--------------|--------------|--------------|--------------|----------------|----------------|----------------|--------------|----------------|--------------|----------------|---------------------|----------------|--------------|-------------|----------------|----------|
| mm   | 5.97<br>4.74 | 5.85<br>5.58 | 0.18<br>0.14 | 7.50<br>7.23 | 6.48<br>6.22   | 7.24<br>6.93   | 27.56<br>25.78 | 9.91<br>9.14 | 3.18<br>2.66   | 1.66<br>1.39 | 11.82<br>11.04 | 1.02                | 3.86<br>2.92   | 3.38<br>2.74 | 8-32<br>UNC | 0.381          | 90°      |

## MAXIMUM RATINGS

| CHARACTERISTICS             | SYMBOL     | RATINGS    | UNITS |
|-----------------------------|------------|------------|-------|
| Collector-Emitter Voltage   | $V_{CEO}$  | 20         | V     |
| Collector-Base Voltage      | $V_{CBO}$  | 50         | V     |
| Collector-Emitter Voltage   | $V_{CES}$  | 50         | V     |
| Collector Current           | $I_C$      | 250.0      | mA    |
| Emitter-Base Voltage        | $V_{EBO}$  | 3.5        | V     |
| Collector Power Dissipation | $P_{DISS}$ | 7          | W     |
| Storage Temperature Range   | $T_{STG}$  | -65 to 150 | °C    |

## ELECTRICAL CHARACTERISTICS

| CHARACTERISTICS                     | SYMBOL        | TEST CONDITIONS                 | MIN. | TYP. | MAX. | UNITS |
|-------------------------------------|---------------|---------------------------------|------|------|------|-------|
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=5mA, I_B=0$                | 20   | -    | -    | V     |
| Collector-Base Breakdown Voltage    | $V_{(BR)CBO}$ | $I_C=5mA, I_E=0$                | 50   | -    | -    | V     |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CES}$ | $I_C=5mA, V_{BE}=0$             | 50   | -    | -    | V     |
| Emitter-Base Breakdown Voltage      | $V_{(BR)EBO}$ | $I_E=1mA, I_C=0$                | 3.5  | -    | -    | V     |
| Collector Cutoff Current            | $I_{CBO}$     | $V_{CB} = 35V, I_E = 0$         | -    | -    | 0.5  | mA    |
| DC Current Gain                     | $h_{FE}$      | $V_{CE}=5V, I_C=75mA$           | 10   | -    | 200  |       |
| Power Gain                          | $G_p$         | $V_{CC}=35V, P_{OUT}=4W,$       | 10.0 | 11.0 | -    | dB    |
| Collector Efficiency                | $\eta_C$      | $f=1090MHz$                     | 40   | 45   | -    | %     |
| Collector Output Capacitance        | $C_{ob}$      | $V_{CB}=35V, I_E=0$<br>$f=1MHz$ | -    | 3.3  | 0.5  | pF    |