

Continental Device India Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company





PNP SILICON PLANAR EXPITAXIAL TRANSISTOR.

2N4037



TO-39 Metal Can Package

MEDIUM POWER AMPLIFIER AND SWITCHING APPLICATIONS.

ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless specified otherwise)

| DESCRIPTION | SYMBOL | VALUE | UNITS | |
|---|-------------------------|-------------|-------|--|
| Collector Emitter Voltage | V _{CEO(sus)} * | 40 | V | |
| Collector Base Voltage | V_{CBO} | 60 | V | |
| Emitter Base Voltage | V_{EBO} | 7.0 | | |
| Collector Current Continuous | I _C | 1.0 | Α | |
| Base Current | l _B | 0.5 | Α | |
| Continuous Power Dissipation @ or Below Ta=25°C | P_{D} | 1.0 | W | |
| Linear Derating Dissipation | | 5.72 | mW/ºC | |
| Operating And Storage Junction Temperature Range | T_{j},T_{stg} | -65 to +200 | оС | |

^{*} Must not be tested on a curve tracer.

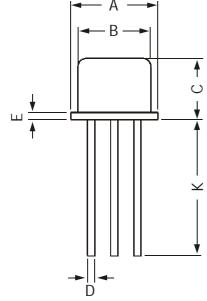
| DESCRIPTION | SYMBOL | TEST CONDITION | VALUE | UNITS |
|---------------------------------------|--------------------|------------------------------|--------|-------|
| Collector Emitter susstaining Voltage | $V_{(BR)CEO(sus)}$ | $I_C=100$ mA, $I_B=0$ | >40 | V |
| Collector Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = 100 \mu A, I_E = 0$ | >60 | V |
| Collector Cut off Current | I_{CBO} | V_{CB} =60V, I_E =0 | <250 | nA |
| Emitter Cut off Current | I _{EBO} | V_{BE} =5 V , I_{C} =0 | <20 | nA |
| DC Current Gain | hFE | $I_C=1mA, V_{CE}=10V$ | >15 | |
| | | $I_C=150$ mA, $V_{CE}=10$ V | 50-250 | |
| Collector Emitter (sat) Voltage | $V_{CE(Sat)}$ | $I_C=150$ mA, $I_B=15$ mA | <1.4 | V |
| Base Emitter Voltage | $V_{BE(0n)}$ | $I_C=150$ mA, $V_{CE}=10$ V | <1.5 | V |

DYNAMIC CHARACTERISTICS

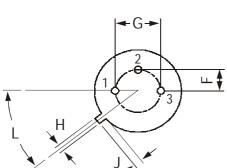
| DESCRIPTION | SYMBOL | TEST CONDITION | VALUE | UNITS |
|------------------------------|-----------------|---|---------|-------|
| Collector Base Capacitance | C_cb | V _{CB} = 10V, f=20MHz | <30 | pF |
| Current Gain -High Frequency | h _{fe} | $I_C = 50 \text{mA}, V_{CE} = 10 \text{V},$ f = 20 MHz | 3.0-1.0 | · |

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| DIM | MIN | MAX |
|-----|--------|--------|
| Α | 8.50 | 9.39 |
| В | 7.74 | 8.50 |
| С | 6.09 | 6.60 |
| D | 0.40 | 0.53 |
| Ε | _ | 0.88 |
| F | 2.41 | 2.66 |
| G | 4.82 | 5.33 |
| Н | 0.71 | 0.86 |
| J | 0.73 | 1.02 |
| K | 12.70 | _ |
| L | 42 DEG | 48 DEG |





All dimensions are in mm

PIN CONFIGURATION

- 1. EMITTER
- 2. BASE
- 3. COLLECTOR

Packing Detail

| PACKAGE | STANDARD PACK | | INNER CARTON BOX | | OUTER CARTON BOX | | |
|---------|-----------------|----------------|------------------|-----|-------------------|-----|--------|
| | Details | Net Weight/Qty | Size | Qty | Size | Qty | Gr Wt |
| TO-39 | 500 pcs/polybag | 540 gm/500 pcs | 3" x 7.5" x 7.5" | 20K | 17" x 15" x 13.5" | 32K | 40 kgs |

Notes 2N4037

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Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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