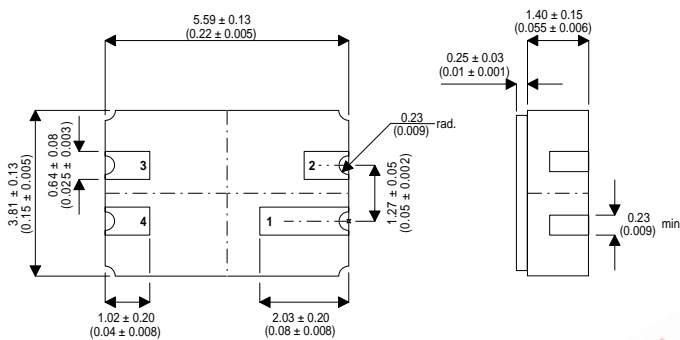


HIGH SPEED PNP MEDIUM VOLTAGE TRANSISTOR IN A CERAMIC SURFACE MOUNT PACKAGE

MECHANICAL DATA

Dimensions in mm (inches)



FEATURES

- CERAMIC SURFACE MOUNT HERMETIC PACKAGE
- LOW WEIGHT
- SMALL FOOTPRINT
- SCREENING OPTIONS AVAILABLE

LCC3 PACKAGE Underside View

PAD 1 – Collector
PAD 2 – N/C

PAD 3 – Emitter
PAD 4 – Base

ABSOLUTE MAXIMUM RATINGS $T_{case} = 25^{\circ}C$ unless otherwise stated

| | | |
|-----------|-------------------------------------------------|-------------------------|
| V_{CEO} | Collector – Emitter Voltage | -80V |
| V_{CBO} | Collector – Base Voltage | -80V |
| V_{EBO} | Emitter – Base Voltage | -5V |
| I_C | Continuous Collector Current | -1A |
| P_D | Total Device Dissipation at $T_A = 25^{\circ}C$ | 400mW |
| | Derate above $25^{\circ}C$ | 2.28 mW/ $^{\circ}C$ |
| T_{stg} | Operating and Storage Temperature Range | -55 to +200 $^{\circ}C$ |

ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

| Parameter | | Test Conditions | Min. | Typ. | Max. | Unit |
|-------------------------------------|---------------------------------------------------|--------------------------------------------------------|------|------|-------|---------|
| I_{CBO} | Collector Cut Off Current | $V_{CB} = -60V$ $T_A = 150^{\circ}C$ | | | -50 | nA |
| | | | | | -50 | μA |
| I_{EBO} | Emitter Cut Off Current | $V_{EB} = -5V$ | | | -10 | μA |
| $V_{CE(sat)}$ | Collector Emitter Saturation Voltage ¹ | $I_C = -150mA$ $I_B = -15mA$ | | | -0.15 | V |
| | | $I_C = -500mA$ $I_B = -50mA$ | | | 0.50 | |
| $V_{BE(sat)}$ | Base Emitter Saturation Voltage ¹ | $I_C = -150mA$ $I_B = -15mA$ | | | -0.9 | V |
| $V_{BE(on)}$ | Base Emitter on Voltage | $I_C = -500mA$ $V_{CE} = -0.5V^1$ | | | -1.1 | V |
| $V_{(BR)CEO}$ | Collector Emitter Breakdown Voltage | $I_C = -10mA$ | -80 | | | V |
| $V_{(BR)CBO}$ | Collector Base Breakdown Voltage | $I_C = -10\mu A$ | -80 | | | V |
| $V_{(BR)EBO}$ | Emitter Base Breakdown Voltage | $I_E = -10\mu A$ | -5.0 | | | V |
| h_{FE} | DC Current Gain | $I_C = -100mA$ $V_{CE} = -5.0V$ @-55°C ¹ | | | 40 | — |
| | | $I_C = -100\mu A$ $V_{CE} = -5.0V$ | 75 | | | |
| | | $I_C = -100mA$ $V_{CE} = -5.0V^1$ | 100 | | 300 | |
| | | $I_C = -500mA$ $V_{CE} = -5.0V^1$ | 70 | | | |
| | | $I_C = -1.0A$ $V_{CE} = -5.0V^1$ | 25 | | | |
| SMALL SIGNAL CHARACTERISTICS | | | | | | |
| C_{obo} | Output Capacitance | $V_{CE} = -10V$ $f = 1MHz$ | | | 20 | pF |
| C_{ibo} | Input Capacitance | $V_{EB} = -0.5V$ $f = 1MHz$ | | | 110 | |
| h_{fe} | Small Signal Gain | $I_C = -50mA$ $V_{CE} = -10V$ $f = 100MHz$ | 1.5 | | 5.0 | — |
| SWITCHING CHARACTERISTICS | | | | | | |
| t_{on} | Turn On Time | $I_C = -500mA$ $I_{B1} = -I_{B2} = -50mA$ | | | 100 | ns |
| t_f | Fall Time | | | | 50 | |
| t_s | Storage Time | | | | 350 | |

¹Pulse test $t_p = 300\mu s$, $\delta = 1\%$