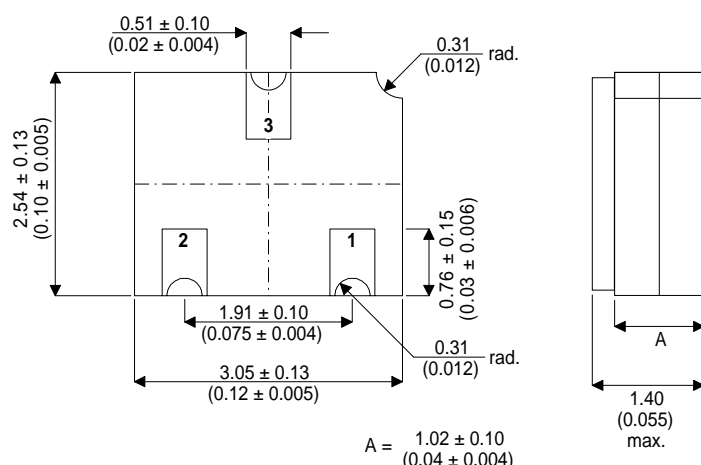


**MECHANICAL DATA**

Dimensions in mm (inches)


**LCC1**
**Underside View**

PAD 1 – Base    PAD 2 – Emitter    PAD 3 – Collector

**PNP SILICON TRANSISTOR IN A  
HERMETICALLY SEALED CERAMIC  
SURFACE MOUNT PACKAGE FOR  
HIGH RELIABILITY APPLICATIONS**
**FEATURES**

- High Voltage Switching
- Low Power Amplifier Applications
- Hermetic Ceramic Surface Mount Package

**APPLICATIONS:**

- CECC Screening Options
- Space Quality Levels Options.

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

$V_{CEO}$	Collector – Emitter Voltage	175V
$V_{CBO}$	Collector – Base Voltage	175V
$V_{EBO}$	Emmitter – Base Voltage	5V
$I_C$	Collector Current	1A
$P_D$	Total Device Dissipation @ $T_A = 25^{\circ}\text{C}$	500mW
$T_J, T_{STG}$	Operating and Storage Junction Temperature Range	-65 to +200°C

**ELECTRICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS							
BV <sub>CEO</sub>	Collector–Emitter Breakdown Voltage <sup>1</sup>	I <sub>C</sub> = 10mA	I <sub>B</sub> = 0	175			V
BV <sub>CBO</sub>	Collector – Base Breakdown Voltage	I <sub>C</sub> = 100μA	I <sub>E</sub> = 0	175			
BV <sub>EBO</sub>	Emitter – Base Breakdown Voltage	I <sub>C</sub> = 0	I <sub>E</sub> = 10μA0	5.0			
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>BE</sub> = 3.0V	I <sub>C</sub> = 0			50	nA
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = 100V	I <sub>E</sub> = 0			100	
ON CHARACTERISTICS							
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 0.1mA	V <sub>CE</sub> = 10V	80			–
		I <sub>C</sub> = 1mA	V <sub>CE</sub> = 10V	90			
		I <sub>C</sub> = 10mA	V <sub>CE</sub> = 10V	100			
		I <sub>C</sub> = 50mA	V <sub>CE</sub> = 10V	100		300	
		I <sub>C</sub> = 150mA	V <sub>CE</sub> = 10V	50			
V <sub>CE(sat)</sub>	Collector – Emitter Saturation Voltage <sup>1</sup>	I <sub>C</sub> = 10mA	I <sub>B</sub> = 1mA			0.3	V
		I <sub>C</sub> = 50mA	I <sub>B</sub> = 5mA			0.5	
V <sub>BE(sat)</sub>	Base – Emitter Saturation Voltage	I <sub>C</sub> = 10mA	I <sub>B</sub> = 1mA			0.8	V
		I <sub>C</sub> = 50mA	I <sub>B</sub> = 5mA	.65		0.9	
SMALL SIGNAL CHARACTERISTICS							
f <sub>t</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> = 20V	I <sub>C</sub> = 50mA f = 100MHz	200			MHz
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> = 20V	I <sub>E</sub> = 0 f = 100kHz			10	pF
C <sub>ib</sub>	Input Capacitance	V <sub>BE</sub> = 1.0V	I <sub>C</sub> = 0 f = 100kHz			75	pF
h <sub>ie</sub>	Input Impedance	V <sub>CE</sub> = 10V	I <sub>C</sub> = 10mA f = 1kHz	200		1200	Ω
h <sub>re</sub>	Voltage Feedback Ratio					3.0	x10 <sup>-4</sup>
h <sub>fe</sub>	Small Siganl Current Gain				80	320	—
h <sub>oe</sub>	Ourput Admittance					200	μmhos
NF		V <sub>CE</sub> = 10V R <sub>S</sub> = 1.0Ω	I <sub>C</sub> = 0.5mA f = 1kHz			3.0	dB
SWITCHING CHARACTERISTICS							
t <sub>on</sub>	Turn–On Time	V <sub>CC</sub> = 100V	V <sub>BE</sub> = 4.0V			400	ns
t <sub>off</sub>	Turn–Off Time	I <sub>C</sub> = 50mA	I <sub>B1</sub> = I <sub>B2</sub> =5mA			600	

1) Pulse test : Pulse Width < 300 $\mu\text{s}$  ,Duty Cycle < 2%