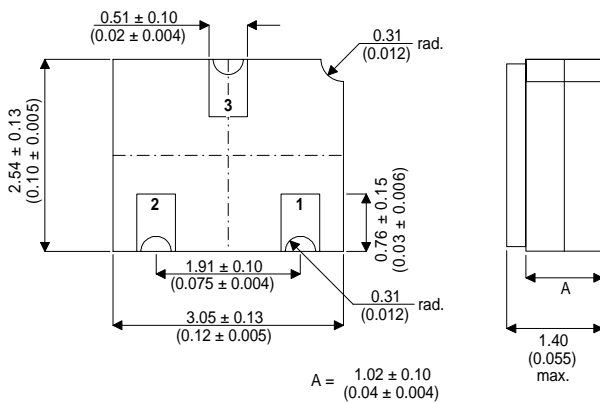


**GENERAL PURPOSE PNP TRANSISTOR  
IN A HERMETICALLY SEALED  
CERAMIC SURFACE MOUNT PACKAGE  
FOR HIGH RELIABILITY APPLICATIONS**

**MECHANICAL DATA**  
Dimensions in mm (inches)

$V_{CEO} = 45V$

$I_C = 500mA$



**SOT23 CERAMIC  
(LCC1 PACKAGE)**

**Underside View**

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

**FEATURES**

- SILICON PLANAR EPITAXIAL PNP TRANSISTOR
- HERMETIC CERAMIC SURFACE MOUNT PACKAGE (SOT23 COMPATIBLE)
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVELS OPTIONS

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

$V_{CBO}$	Collector - Base Voltage	-50V
$V_{CEO}$	Collector - Emitter Voltage	-45V
$V_{EBO}$	Emitter - Base Voltage	-5V
$I_C$	Collector Current	500mA
$P_D$	Total Device Dissipation	350mW
$P_D$	Derate above 50°C	2.0mW / °C
$R_{ja}$	Thermal Resistance Junction to Ambient	350°C / W
$T_{stg}, T_j$	Storage Temperature, Operating Temp Range	-55 to 200°C

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{\text{CES}}^*$	Collector – Emitter Sustaining Voltage	$V_{\text{BE}} = 0$	-50		V
$V_{\text{CEO}}^*$	Collector – Base Voltage	$I_{\text{C}} = 10\text{mA}$	-45		
$V_{\text{EBO}}^*$	Emitter – Base Breakdown Voltage	$I_{\text{E}} = 10\mu\text{A}$ $I_{\text{C}} = 0$	-5		
$I_{\text{CBO}}^*$	Collector – Base Cut-off Current	$I_{\text{E}} = 0$ $V_{\text{CB}} = -20\text{V}$		100	nA
		$T_{\text{C}} = 150^{\circ}\text{C}$		5	$\mu\text{A}$
$I_{\text{EBO}}^*$	Emitter Base Cut-off Current	$V_{\text{BE}} = 0.5\text{V}$ $I_{\text{C}} = 0$		10	$\mu\text{A}$
$V_{\text{CE(sat)}}^*$	Collector – Emitter Saturation Voltage	$I_{\text{C}} = 500\text{mA}$ $I_{\text{B}} = 50\text{mA}$		0.62	V
$V_{\text{BE(sat)}}^*$	Base – Emitter Saturation Voltage	$I_{\text{C}} = 500\text{mA}$ $I_{\text{B}} = 50\text{mA}$		1.2	
$h_{\text{FE}}^*$	DC Current Gain	$I_{\text{C}} = 100\text{mA}$ $V_{\text{CE}} = 1\text{V}$	100	600	—
		$I_{\text{C}} = 300\text{mA}$ $V_{\text{CE}} = 1\text{V}$	70		
		$I_{\text{C}} = 500\text{mA}$ $V_{\text{CE}} = 1\text{V}$	40		

\* Pulse test  $t_{\text{p}} = 300\mu\text{s}$ ,  $\delta \leq 2\%$

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$f_{\text{T}}$	Transition Frequency	$I_{\text{C}} = 10\text{mA}$ $V_{\text{CE}} = 5\text{V}$ $f = 35\text{MHz}$		100	MHz
$C_{\text{ob}}$	Output Capacitance	$V_{\text{CB}} = 10\text{V}$ $I_{\text{E}} = 0$ $f = 1.0\text{MHz}$		8	pF