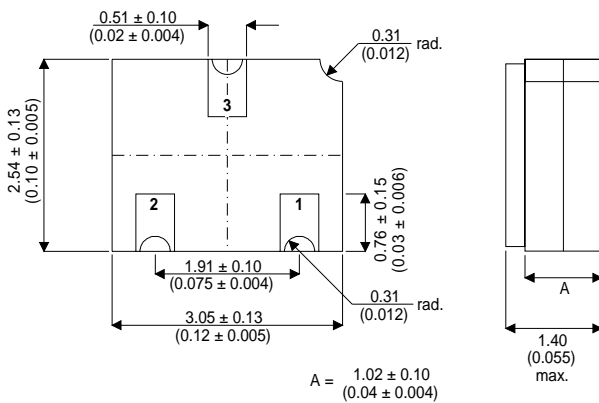


**MECHANICAL DATA**

Dimensions in mm (inches)



**SOT23 CERAMIC  
(LCC1 PACKAGE)**

Underside View

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

**GENERAL PURPOSE  
NPN TRANSISTOR  
IN A HERMETICALLY SEALED  
CERAMIC SURFACE MOUNT  
PACKAGE**

**FEATURES**

- GENERAL PURPOSE NPN TRANSISTOR
- HERMETIC CERAMIC SURFACE MOUNT PACKAGE
- CECC SCREENING OPTIONS

**ABSOLUTE MAXIMUM RATINGS** (T<sub>case</sub> = 25°C unless otherwise stated)

V <sub>CBO</sub>	Collector – Base Voltage	300V
V <sub>CEO</sub>	Collector – Emitter Voltage	300V
V <sub>EBO</sub>	Emitter – Base Voltage	6V
I <sub>C</sub>	Continuous Collector Current	500mA
P <sub>tot</sub>	Power Dissipation @ T <sub>amb</sub> = 25°C	680mW
	@ T <sub>case</sub> = 25°C	1.8W
T <sub>j</sub> T <sub>stg</sub>	Operating and Storage Temperature	-55 to 175°C

**THERMAL CHARACTERISTICS**

Parameter	Max.	Unit
R <sub>th(j-amb)</sub> Thermal Resistance Junction to Ambient	350	°C/W

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{(BR)CBO}$	Collector – Base Breakdown Voltage $I_C = 100\mu\text{A}$ $I_E = 0$	300			V
$V_{(BR)CEO}$	Collector - Emitter Breakdown Voltage $I_C = 1\text{mA}$ $I_B = 0^*$	300			V
$V_{(BR)EBO}$	Emitter – Base Breakdown Voltage $I_E = 100\mu\text{A}$ $I_C = 0$	6			V
$I_{CBO}$	Collector Cut-off Current $V_{CB} = 200\text{V}$ $I_E = 0$			0.1	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current $V_{EB} = 6\text{V}$ $I_C = 0$			0.1	$\mu\text{A}$
		$V_{EB} = 4\text{V}$ $I_C = 0$		—	
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage $I_C = 20\text{mA}$ $I_B = 2\text{mA}$			0.5	V
$V_{BE(sat)}$	Emitter Saturation Voltage $I_C = 20\text{mA}$ $I_B = 2\text{mA}$			0.9	
$h_{FE}$	Static Forward Current Transfer Ratio $I_C = 1\text{mA}$ $V_{CE} = 10\text{V}^*$	25			—
		$I_C = 10\text{mA}$ $V_{CE} = 10\text{V}^*$	40		
		$I_C = 30\text{mA}$ $V_{CE} = 10\text{V}^*$	40		
$f_T$	Transition Frequency $V_{CE} = 20\text{V}$ $I_C = 10\text{mA}$ $f = 20\text{MHz}$	50			MHz
$C_{obo}$	Output Capacitance $V_{CB} = 20\text{V}$ $I_E = 0$ $f = 1\text{MHz}$		6		pF

\* Pulse Test: Pulse Width = 200 $\mu\text{s}$ , Duty Cycle  $\leq 2\%$ .



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