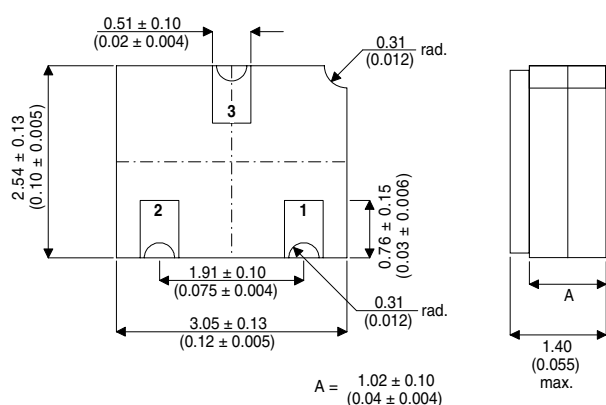


**MECHANICAL DATA**

Dimensions in mm (inches)



**SOT23 CERAMIC  
(LCC1 PACKAGE)**

**Underside View**

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

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

**FEATURES**

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

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

$V_{CBO}$	Collector – Base Voltage	-300V
$V_{CEO}$	Collector – Emitter Voltage	-300V
$V_{EBO}$	Emitter – Base Voltage	-5V
$I_C$	Continuous Collector Current	-500mA
$P_{tot}$	Power Dissipation @ $T_{amb} = 25^{\circ}C$	680mW
	@ $T_{case} = 25^{\circ}C$	1.8W
$T_j T_{stg}$	Operating and Storage Temperature	-55 to 175°C

**THERMAL CHARACTERISTICS**

Parameter	Max.	Unit
$R_{th(j-amb)}$ Thermal Resistance Junction to Ambient	350	°C/W
$R_{th(j-case)}$ Thermal Resistance Junction to Case	80	°C/W

Semelab Plc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

**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 $I_E = -10\mu\text{A}$ $I_C = 0$	-5			V
$I_{CBO}$	Collector Cut-off Current $V_{CB} = -200\text{V}$ $I_E = 0$			-0.25	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current $V_{EB} = -3\text{V}$ $I_E = 0$			-0.1	
$V_{CE(sat)}$	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		
		$I_C = -30\text{mA}$ $V_{CE} = -10\text{V}^*$	25		
$f_T$	Transition Frequency $V_{CE} = -20\text{V}$ $I_C = -10\text{mA}$ $f = 20\text{MHz}$	50			MHz
$C_{obo}$	Output Capacitance $V_{CB} = -20\text{V}$ $f = 1\text{MHz}$			6	pF

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