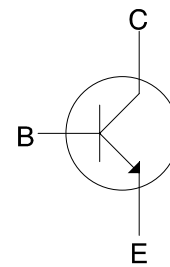
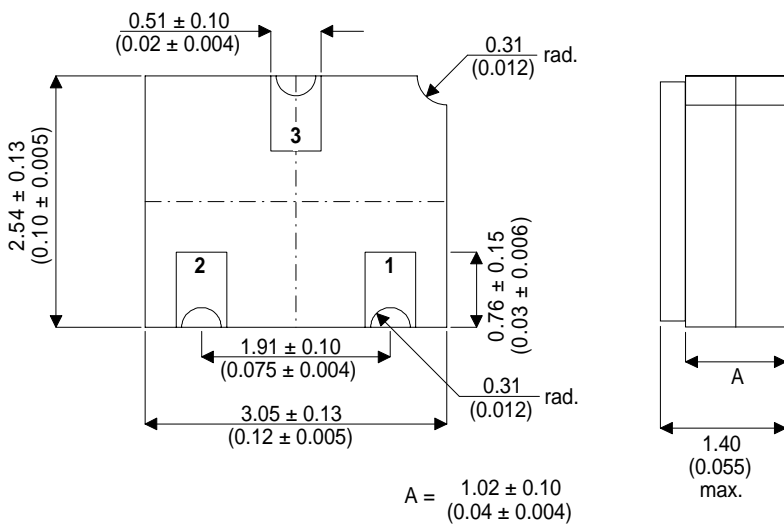


MECHANICAL DATA

Dimensions in mm (inches)

**SILICON NPN
HIGH VOLTAGE TRANSISTOR
IN CERAMIC SURFACE MOUNT
PACKAGE**



**SOT23 CERAMIC
(LCC1 PACKAGE)**

Underside View

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

FEATURES

- HIGH BREAKDOWN VOLTAGE
- LOW SATURATION VOLTAGES
- LOW CAPACITANCE
- HERMETIC CERAMIC SURFACE MOUNT PACKAGE SOT23CSM (SOT23 COMPATIBLE)

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	6V
I_C	Collector Current	500mA
P_D	Total Device Dissipation	350mW
	Derate Above 25°C	2.0mW/°C
T_j	Maximum Junction Temperature	200°C
T_{stg}	Storage Temperature Range	-55 to 200°C

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{(BR)CBO}$	Collector - Base breakdown voltage $I_C = 100\mu A$ $I_E = 0$	300			V
$V_{(BR)CEO}$	Collector - Emitter breakdown voltage $I_C = 1mA$ $I_B = 0^*$	300			V
$V_{(BR)EBO}$	Emitter - Base breakdown voltage $I_E = 100\mu A$ $I_C = 0$	6			V
I_{CBO}	Collector cut-off current $V_{CB} = 200V$ $I_E = 0$			0.1	μA
I_{EBO}	Emitter cut-off current $V_{EB} = 6V$ $I_C = 0$			0.1	μA
$V_{CE(sat)}$	Collector - Emitter saturation voltage $I_C = 20mA$ $I_B = 2mA$			0.5	V
$V_{BE(sat)}$	Base - Emitter saturation voltage $I_C = 20mA$ $I_B = 2mA$			0.9	V
h_{FE}	DC Current gain	$I_C = 1mA$ $V_{CE} = 10V^*$	25		—
		$I_C = 10mA$ $V_{CE} = 10V^*$	40		
		$I_C = 30mA$ $V_{CE} = 10V^*$	40		
f_T	Transition frequency $I_C = 10mA$ $V_{CE} = 20V$ $f = 20MHz$	50			MHz
C_{ob}	Output capacitance $V_{CB} = 20V$ $I_E = 0$ $f = 1MHz$			6	pF

* Pulse test $t_p = 200\mu s$, $\delta = 2\%$