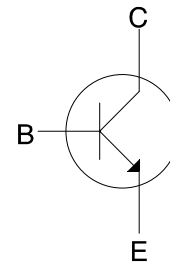
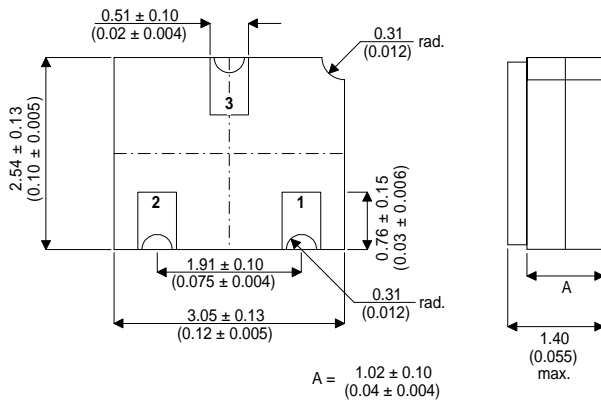


SILICON NPN HIGH VOLTAGE TRANSISTOR IN CERAMIC SURFACE MOUNT PACKAGE

MECHANICAL DATA

Dimensions in mm (inches)



FEATURES

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

SOT23 CERAMIC (LCC1 PACKAGE)

Underside View

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

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

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

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

* Pulse test $t_{\text{p}} = 200\mu\text{s}$, $\delta = 2\%$