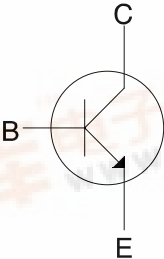
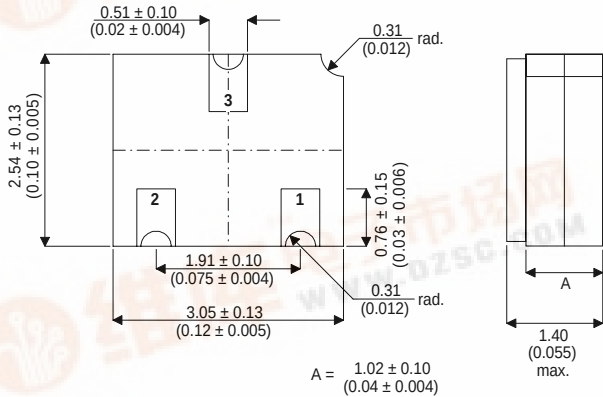


SMLA42CSM

MECHANICAL DATA
Dimensions in mm (inches)

SILICON NPN
HIGH VOLTAGE TRANSISTOR
IN CERAMIC SURFACE MOUNT
PACKAGE



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°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
	Maximum Junction Temperature	200°C
	Storage Temperature Range	–55 to 200°C



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 $t_p = 200\mu s$, $\delta = 2\%$