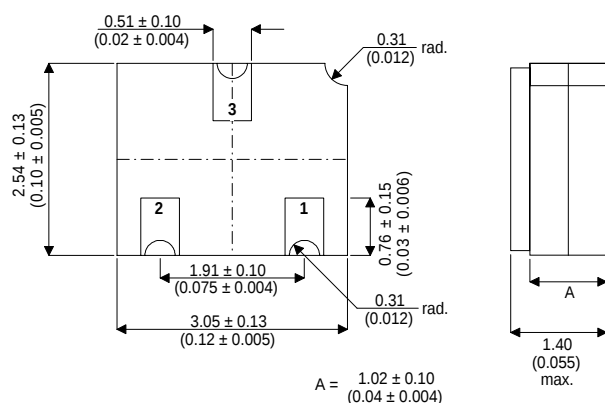


GENERAL PURPOSE PNP TRANSISTOR IN A HERMETICALLY SEALED CERAMIC SURFACE MOUNT PACKAGE FOR HIGH RELIABILITY APPLICATIONS

MECHANICAL DATA

Dimensions in mm (inches)



SOT23 CERAMIC (LCC1 PACKAGE)

Underside View

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

$$V_{CEO} = 45V$$

$$I_C = 500mA$$

FEATURES

- SILICON PLANAR EPITAXIAL PNP TRANSISTOR
- HERMETIC CERAMIC SURFACE MOUNT PACKAGE (SOT23 COMPATIBLE)
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVELS OPTIONS

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

V _{CBO}	Collector - Base Voltage	–50V
V _{CEO}	Collector - Emitter Voltage	–45V
V _{EBO}	Emitter - Base Voltage	–5V
I _C	Collector Current	500mA
P _D	Total Device Dissipation	350mW
P _D	Derate above 50°C	2.0mW / °C
R _{ja}	Thermal Resistance Junction to Ambient	350°C / W
T _{stg} , T _j	Storage Temperature, Operating Temp Range	–55 to 200°C

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_{CES}^*	Collector – Emitter Sustaining Voltage	$V_{BE} = 0$	–50		V
V_{CEO}^*	Collector – Base Voltage	$I_C = 10mA$	–45		
V_{EBO}^*	Emitter – Base Breakdown Voltage	$I_E = 10\mu A$ $I_C = 0$	–5		
I_{CBO}^*	Collector – Base Cut-off Current	$I_E = 0$ $V_{CB} = -20V$		100	nA
		$T_C = 150^{\circ}C$		5	μA
I_{EBO}^*	Emitter Base Cut-off Current	$V_{BE} = 0.5V$ $I_C = 0$		10	μA
$V_{CE(sat)}^*$	Collector – Emitter Saturation Voltage	$I_C = 500mA$ $I_B = 50mA$		0.62	V
$V_{BE(sat)}^*$	Base – Emitter Saturation Voltage	$I_C = 500mA$ $I_B = 50mA$		1.2	
h_{FE}^*	DC Current Gain	$I_C = 100mA$ $V_{CE} = 1V$	100	600	—
		$I_C = 300mA$ $V_{CE} = 1V$	70		
		$I_C = 500mA$ $V_{CE} = 1V$	40		

* Pulse test $t_p = 300\mu s$, $\delta \leq 2\%$

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
f_T	Transition Frequency	$I_C = 10mA$ $V_{CE} = 5V$ $f = 35MHz$	100		MHz
C_{ob}	Output Capacitance	$V_{CB} = 10V$ $I_E = 0$ $f = 1.0MHz$	8		pF