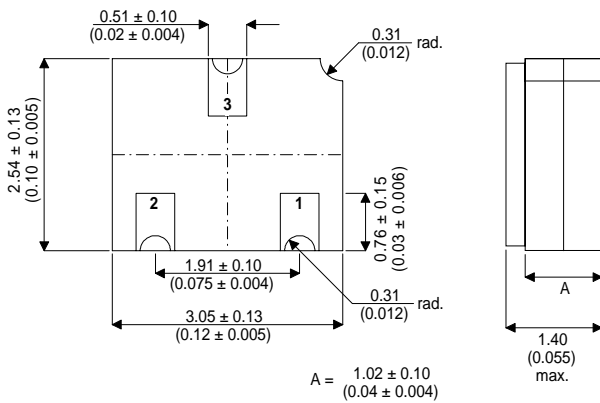


**HIGH SPEED, MEDIUM POWER, PNP
GENERAL PURPOSE TRANSISTOR IN A
HERMETICALLY SEALED
CERAMIC SURFACE MOUNT PACKAGE
FOR HIGH RELIABILITY APPLICATIONS**

MECHANICAL DATA
Dimensions in mm (inches)



**SOT23 CERAMIC
(LCC1 PACKAGE)**

Underside View

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

FEATURES

- SILICON PLANAR EPITAXIAL PNP TRANSISTOR
- HERMETIC CERAMIC SURFACE MOUNT PACKAGE (SOT23 COMPATIBLE)
- SCREENING OPTIONS AVAILABLE
- HIGH SPEED, LOW SATURATION SWITCH

APPLICATIONS:

Hermetically sealed surface mount version of the popular 2N2894A for high reliability applications requiring small size and low weight devices.

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise stated)

V_{CBO}	Collector – Base Voltage	-12V
V_{CEO}	Collector – Emitter Voltage	-12V
V_{EBO}	Emitter – Base Voltage	-4V
I_C	Collector Current	200mA
P_D	Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	360mW 2.06mW / °C
T_{STG}, T_J	Operating and Storage Temperature Range	-65 to +200°C

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{(BR)CBO}^*$	Collector – Base Breakdown Voltage	$I_C = 10\mu\text{A}$	$I_E = 0$	- 12	
$V_{(BR)CEO}$	Collector – Emitter Breakdown Voltage	$I_C = 10\text{mA}$	$I_B = 0$	- 12	V
$V_{(BR)EBO}$	Emitter – Base Breakdown Voltage	$I_E = 10\mu\text{A}$	$I_C = 0$	- 4	
I_{CBO}	Collector Cut-off Current	$V_{CB} = -6\text{V}$	$T_{amb} = 125^\circ\text{C}$		- 10
I_{CES}	Collector Cut-off Current	$V_{BE} = 0$	$V_{CE} = -6\text{V}$		- 80
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	$I_C = -10\text{mA}$	$I_B = -1\text{mA}$		-0.15
		$I_C = -30\text{mA}$	$I_B = -3\text{mA}$		-0.20
		$I_C = -100\text{mA}$	$I_B = -10\text{mA}$		- 0.50
$V_{BE(sat)}$	Base – Emitter On Voltage	$I_C = -10\text{mA}$	$I_B = -1\text{mA}$	-0.78	-0.98
		$I_C = -30\text{mA}$	$I_B = -3\text{mA}$	-0.85	-1.2.
		$I_C = -100\text{mA}$	$I_B = -10\text{mA}$		-1.7
h_{FE}	DC Current Gain	$I_C = -10\text{mA}$	$V_{CE} = -0.3\text{V}$	30	
		$I_C = -30\text{mA}$	$V_{CE} = -0.5\text{V}$	40	150
		$I_C = -100\text{mA}$	$V_{CE} = -1\text{V}$	25	
		$I_C = -30\text{mA}$	$V_{CE} = -0.5\text{V}$ $T_{amb} = 125^\circ\text{C}$	17	
f_T	Current Gain Bandwidth Product	$V_{CE} = -10\text{V}$ $I_C = -30\text{mA}$	$f = 100\text{MHz}$	400	MHz
C_{ebo}	Emitter – Base – Capacitance	$V_{EB} = -5\text{V}$ $f = 1\text{MHz}$	$I_C = 0$		6
C_{cbo}	Collector – Base – Capacitance	$V_{CB} = -5\text{V}$ $f = 1\text{MHz}$	$I_C = 0$		6
t_{on}	Turn on Time	$I_C = -30\text{mA}$ $I_{B2} = -1.5\text{mA}$	$V_{CE} = -2\text{V}$		60
t_{off}	Turn off Time	$I_C = -30\text{mA}$ $I_{B1} = I_{B2} = -1.5\text{mA}$	$V_{CE} = -2\text{V}$		9

* Pulse Test: $t_p \leq 300\mu\text{s}$, $\delta \leq 2\%$.