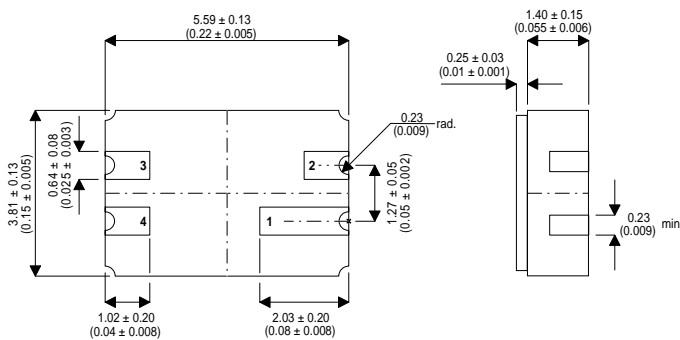


HIGH SPEED PNP MEDIUM VOLTAGE TRANSISTOR IN A CERAMIC SURFACE MOUNT PACKAGE

MECHANICAL DATA

Dimensions in mm (inches)



FEATURES

- CERAMIC SURFACE MOUNT HERMETIC PACKAGE
- LOW WEIGHT
- SMALL FOOTPRINT
- SCREENING OPTIONS AVAILABLE

LCC3 PACKAGE Underside View

PAD 1 – Collector PAD 3 – Emitter
PAD 2 – N/C PAD 4 – Base

ABSOLUTE MAXIMUM RATINGS $T_{case} = 25^{\circ}C$ unless otherwise stated

V_{CEO}	Collector – Emitter Voltage	-80V
V_{CBO}	Collector – Base Voltage	-80V
V_{EBO}	Emitter – Base Voltage	-5V
I_C	Continuous Collector Current	-1A
P_D	Total Device Dissipation at $T_A = 25^{\circ}C$	400mW
	Derate above $25^{\circ}C$	2.28 mW/ $^{\circ}C$
T_{stg}	Operating and Storage Temperature Range	-55 to +200 $^{\circ}C$

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

Parameter		Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cut Off Current	$V_{\text{CB}} = -60\text{V}$ $T_{\text{A}} = 150^{\circ}\text{C}$			-50	nA
					-50	μA
I_{EBO}	Emitter Cut Off Current	$V_{\text{EB}} = -5\text{V}$			-10	μA
$V_{\text{CE(sat)}}$	Collector Emitter Saturation Voltage ¹	$I_{\text{C}} = -150\text{mA}$ $I_{\text{B}} = -15\text{mA}$			-0.15	V
		$I_{\text{C}} = -500\text{mA}$ $I_{\text{B}} = -50\text{mA}$			0.50	
$V_{\text{BE(sat)}}$	Base Emitter Saturation Voltage ¹	$I_{\text{C}} = -150\text{mA}$ $I_{\text{B}} = -15\text{mA}$			-0.9	V
$V_{\text{BE(on)}}$	Base Emitter on Voltage	$I_{\text{C}} = -500\text{mA}$ $V_{\text{CE}} = -0.5\text{V}^1$			-1.1	V
$V_{\text{(BR)CEO}}$	Collector Emitter Breakdown Voltage	$I_{\text{C}} = -10\text{mA}$	-80			V
$V_{\text{(BR)CBO}}$	Collector Base Breakdown Voltage	$I_{\text{C}} = -10\mu\text{A}$	-80			V
$V_{\text{(BR)EBO}}$	Emitter Base Breakdown Voltage	$I_{\text{E}} = -10\mu\text{A}$	-5.0			V
h_{FE}	DC Current Gain	$I_{\text{C}} = -100\text{mA}$ $V_{\text{CE}} = -5.0\text{V}$ @-55°C ¹	40			—
		$I_{\text{C}} = -100\mu\text{A}$ $V_{\text{CE}} = -5.0\text{V}$	75			
		$I_{\text{C}} = -100\text{mA}$ $V_{\text{CE}} = -5.0\text{V}^1$	100		300	
		$I_{\text{C}} = -500\text{mA}$ $V_{\text{CE}} = -5.0\text{V}^1$	70			
		$I_{\text{C}} = -1.0\text{A}$ $V_{\text{CE}} = -5.0\text{V}^1$	25			

SMALL SIGNAL CHARACTERISTICS

C_{obo}	Output Capacitance	$V_{\text{CE}} = -10\text{V}$ $f = 1\text{MHz}$			20	pF
C_{ibo}	Input Capacitance	$V_{\text{EB}} = -0.5\text{V}$ $f = 1\text{MHz}$			110	
h_{fe}	Small Signal Gain	$I_{\text{C}} = -50\text{mA}$ $V_{\text{CE}} = -10\text{V}$ $f = 100\text{MHz}$	1.5		5.0	—

SWITCHING CHARACTERISTICS

t_{on}	Turn On Time	$I_{\text{C}} = -500\text{mA}$ $I_{\text{B1}} = -I_{\text{B2}} = -50\text{mA}$			100	ns
t_{f}	Fall Time				50	
t_{s}	Storage Time				350	

¹Pulse test $t_{\text{p}} = 300\mu\text{s}$, $\delta = 1\%$



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