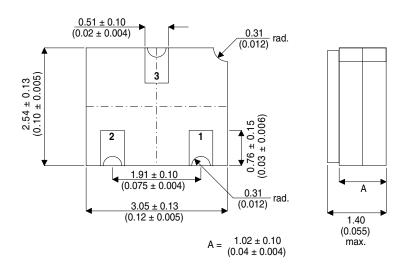




MECHANICAL DATA

Dimensions in mm (inches)



LCC₁

Underside View

PAD 1 - Base PAD 2 - Emitter PAD 3 - Collector

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

FEATURES

- High Voltage Switching
- Low Power Amplifier Applications
- Hermetic Ceramic Surface Mount **Package**

APPLICATIONS

- General Purpose
- High Speed Saturated Switching
- Screening Options Available

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

$\overline{V_{CEO}}$	Collector – Emitter Voltage	-140V
V_{CBO}	Collector – Base Voltage	-140V
V_{EBO}	Emmiter – Base Voltage	-5V
I _C	Collector Current	-1A
P_{D}	Total Device Dissipation @ T _A = 25°C	1W
	Derate above 25°C	5.71mW/ °C
P_{D}	Total Device Dissipation @ T _C = 25°C	5W
	Derate above 25°C	28.6mW / °C
T_J , T_STG	Operating and Storage Junction Temperature Range	−65 to +200°C

Semelab Plc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

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

	Parameter	Test Conditions		Min.	Тур.	Max.	Unit
	OFF CHARACTERISTICS	•	•				
/ _{CEO}	Collector-Emitter Breakdown Voltage ¹	I _C = -10mA	I _B = 0	-140			
/ _{CBO}	Collector – Base Breakdown Voltage	I _C = -100μA	I _E = 0	-140			V
/ _{EBO}	Emitter – Base Breakdown Voltage	I _C = 0	I _E = -10μΑ	-5.0			
BO	Emitter Cut-off Current	$V_{BE} = -3.0V$	I _C = 0			-50	nA
ВО	Collector Cut-off Current	V _{CB} = -100V	I _E = 0			-100	
	ON CHARACTERISTICS						
	DC Current Gain	$I_{C} = -0.1 \text{mA}$	V _{CE} = -10V	40			
		$I_{C} = -1.0 \text{mA}$	V _{CE} = -10V	45			
Έ		I _C = -10mA	V _{CE} = -10V	50			
		I _C = -50mA	V _{CE} = -10V	50		150	
		I _C = -150mA	V _{CE} = -10V	25			
	Collector – Emitter Saturation Voltage ¹	I _C = -10mA	I _B = -1.0mA			-0.3	V
CE(sat)		I _C = -50mA	I _B = -5mA			-0.5	
	Base – Emitter Saturation Voltage	I _C = -10mA	I _B = -1.0mA			-0.8	V
V _{BE(sat)}		I _C = -50mA	I _B = -5mA	-0.65		-0.9	
	SMALL SIGNAL CHARACTERIST	CS					
f _t	Current Gain Bandwidth Product	V _{CE} = -30V	I _C = -30mA	100			MHz
			f = 100MHz	100			
	Output Capacitance	V _{CB} = -20V	I _E = 0			10	pF
C _{ob}			f = 100kHz			10	
C _{ib}	Input Capacitance	$V_{BE} = 1.0V$	I _C = 0			75	pF
			f = 1.0MHz				
9	Input Impedance			100		600	Ω
	Voltage Feedback Ratio	$V_{CE} = -10V$	I _C = -10mA			3.0	x10 ⁻⁴
9	Small Signal Current Gain	1	f = 1.0kHz		40	160	_
е	Output Admittance					200	μmhos
NF	Noise Figure	V _{CE} = -10V	I _C = -0.5mA			3.0	dB
		$R_S = 1.0K\Omega$	f = 1.0kHz			3.0	ub
	SWITCHING CHARACTERISTICS						•
n	Turn-On Time	V _{CC} = -100V	$V_{BE} = 4.0V$			400	ns
	Turn-Off Time	I _C = -50mA	I _{B1} = I _{B2} =-5mA			600	
n f	Turn-On Time		$V_{BE} = 4.0V$ $I_{B1} = I_{B2} = -5mA$				

1) Pulse test : Pulse Width < $300\mu s$,Duty Cycle < 2%

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