



MECHANICAL DATA

Dimensions in mm (inches)

$\frac{0.51 \pm 0.10}{(0.02 \pm 0.004)}$ 0.31 (0.012) rad. 2.54 ± 0.13 (0.10 ± 0.005) 1.91 ± 0.10 (0.075 ± 0.004) Α 0.31 (0.012) 3.05 ± 0.13 (0.12 ± 0.005) 1.40 (0.055) 1.02 ± 0.10 max. (0.04 ± 0.004)

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**

LCC₁

Underside View

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

APPLICATIONS:

- CECC Screening Options
- Space Quality Levels Options.

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

V_{CEO}	Collector – Emitter Voltage	-175V
V_{CBO}	Collector – Base Voltage	-175V
V_{EBO}	Emmiter – Base Voltage	-5V
I _C	Collector Current	-1A
P_{D}	Total Device Dissipation @ T _A = 25°C	500mW
T_J , T_STG	Operating and Storage Junction Temperature Range	−65 to +200°C

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E-mail: sales@semelab.co.uk

Semelab plc. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.

Website: http://www.semelab.co.uk





ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise stated)

	Parameter	Test Conditions		Min.	Тур.	Max.	Unit	
	OFF CHARACTERISTICS	•	•					
BV _{CEO}	Collector–Emitter Breakdown Voltage ¹	$I_C = -10mA$	I _B = 0	-175				
BV _{CBO}	Collector – Base Breakdown Voltage	$I_C = -100 \mu A$	I _E = 0	-175			V	
BV _{EBO}	Emitter – Base Breakdown Voltage	$I_C = 0$	$I_{E} = -10 \mu A$	-5.0			1	
I _{EBO}	Emitter Cut-off Current	$V_{BE} = -3.0V$	I _C = 0			-50	nA	
I _{CBO}	Collector Cut-off Current	V _{CB} = -100V	I _E = 0			-100		
	ON CHARACTERISTICS							
h _{FE}	DC Current Gain	$I_{C} = -0.1 \text{mA}$	V _{CE} = -10V	80				
		$I_{C} = -1.0 \text{mA}$	V _{CE} = -10V	90				
		$I_C = -10mA$	V _{CE} = -10V	100				
		$I_C = -50 \text{mA}$	V _{CE} = -10V	100		300		
		I _C = -150mA	V _{CE} = -10V	50				
V _{CE(sat)}	Collector – Emitter Saturation Voltage ¹	$I_C = -10mA$	I _B = -1.0mA			-0.3	V	
		$I_C = -50 \text{mA}$	I _B = -5mA			-0.5		
V _{BE(sat)}	Base – Emitter Saturation Voltage	$I_C = -10mA$	I _B = -1.0mA			-0.8	V	
		$I_C = -50 \text{mA}$	I _B = -5mA	-0.65		-0.9		
	SMALL SIGNAL CHARACTERIST	CS	•					
f _t	Current Gain Bandwidth Product	$V_{CE} = -30V$ I_{C}	I _C = -30mA	100			MHz	
			f = 100MHz				IVITZ	
C _{ob}	Output Capacitance	V _{CB} = -20V	I _E = 0			10	pF	
			f = 100kHz			10		
C _{ib}	Input Capacitance	V _{BE} = 1.0V	I _C = 0			75	pF	
			f = 100kHz					
h _{ie}	Input Impedance			200		1200	Ω	
h _{re}	Voltage Feedback Ratio	$V_{CE} = -10V$	I _C = -10mA			3.0	x10 ⁻⁴	
h _{fe}	Small Signal Current Gain		f = 1.0kHz		80	320		
h _{oe}	Output Admittance					200	μmhos	
NF		V _{CE} = -10V	$I_C = -0.5 \text{mA}$			3.0	dB	
		$R_S = 1.0\Omega$	f = 1.0kHz			3.0	l ub	
	SWITCHING CHARACTERISTICS							
t _{on}	Turn-On Time	V _{CC} = -100V	$V_{BE} = 4.0V$			400		
t _{off}	Turn-Off Time	$I_C = -50 \text{mA}$	I _{B1} = I _{B2} =-5mA			600	ns	

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

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