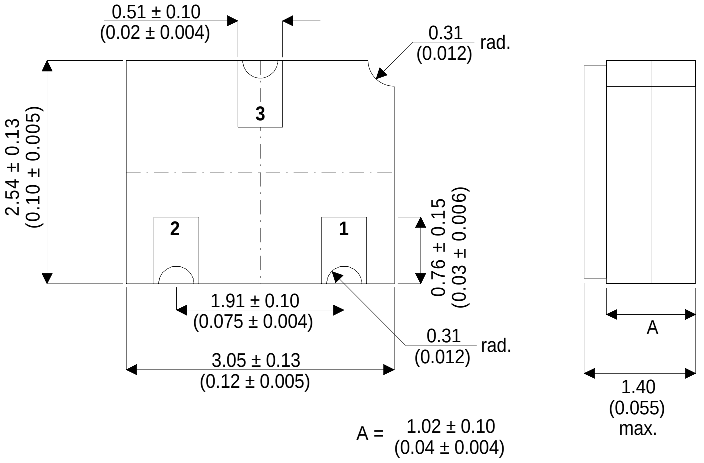
SEME LAB

2N3637CSM

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:

- **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

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

	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
	OFF CHARACTERISTICS						
BV_{CEO}	Collector–Emitter Breakdown Voltage[1]	I_C = 10mA	I_B = 0	175			V
BV_{CBO}	Collector – Base Breakdown Voltage	I_C = 100µA	I_E = 0	175			
BV_{EBO}	Emitter – Base Breakdown Voltage	I_C = 0	I_E = 10µA0	5.0			
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 = 0.1mA	V_{CE} = 10V	80			–
		I_C = 1mA	V_{CE} = 10V	90			
		I_C = 10mA	V_{CE} = 10V	100			
		I_C = 50mA	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 = 1mA			0.3	V
		I_C = 50mA	I_B = 5mA			0.5	
$V_{BE(sat)}$	Base – Emitter Saturation Voltage	I_C = 10mA	I_B = 1mA			0.8	V
		I_C = 50mA	I_B = 5mA	.65		0.9	
	SMALL SIGNAL CHARACTERISTICS						
f_t	Current Gain Bandwidth Product	V_{CE} = 20V	I_C = 50mA f = 100MHz	200			MHz
C_{ob}	Output Capacitance	V_{CB} = 20V	I_E = 0 f = 100kHz			10	pF
C_{ib}	Input Capacitance	V_{BE} = 1.0V	I_C = 0 f = 100kHz			75	pF
h_{ie}	Input Impedance	V_{CE} = 10V	I_C = 10mA f = 1kHz	200		1200	Ω
h_{re}	Voltage Feedback Ratio					3.0	x10^{-4}
h_{fe}	Small Siganl Current Gain				80	320	—
h_{oe}	Ourput Admittance					200	µmhos
NF		V_{CE} = 10V R_S = 1.0Ω	I_C = 0.5mA f = 1kHz			3.0	dB
	SWITCHING CHARACTERISTICS						
t_{on}	Turn–On Time	V_{CC} = 100V	V_{BE} = 4.0V			400	ns
t_{off}	Turn–Off Time	I_C = 50mA	I_{B1} = I_{B2} =5mA			600	

1) Pulse test : Pulse Width < 300µs ,Duty Cycle < 2%