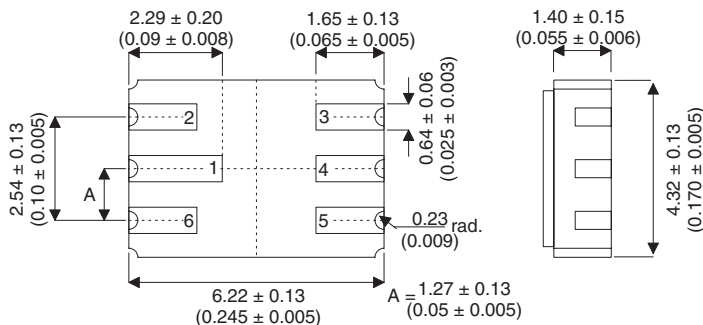


**PNP DUAL TRANSISTOR IN A
HERMETICALLY SEALED CERAMIC
SURFACE MOUNT PACKAGE
FOR HIGH RELIABILITY APPLICATIONS**

MECHANICAL DATA

Dimensions in mm (inches)



FEATURES

- DUAL SILICON PLANAR PNP TRANSISTORS
- HERMETIC SURFACE MOUNT PACKAGE
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVEL OPTIONS

**LCC2 PACKAGE
Underside View**

- | | |
|---------------------|---------------------|
| PAD 1 – Collector 1 | PAD 4 – Collector 2 |
| PAD 2 – Base 1 | PAD 5 – Emitter 2 |
| PAD 3 – Base 2 | PAD 6 – Emitter 1 |

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

V_{CBO}	Collector – Base Voltage	-120V
V_{CEO}	Collector – Emitter Voltage	-100V
V_{EBO}	Emitter – Base Voltage	-5V
I_C	Continuous Collector Current	-2A
P_{TOT}	Power Dissipation @ $T_{amb} = 25^\circ\text{C}$	1.0W
	Derate above 25°C	8mW/ $^\circ\text{C}$
$T_j T_{STG}$	Operating And Storage Temperature Range	-55 to 150°C
$R_{\theta J-A}$	Junction - Ambient Thermal Resistance	125 $^\circ\text{C}/\text{W}$

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.

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 $I_C = -100\mu\text{A}$	-120			V
$V_{(BR)CEO}$	Collector – Emitter Breakdown Voltage $I_C = -10\text{mA}$	-100			
$V_{(BR)EBO}$	Emitter – Base Breakdown Voltage $I_E = -100\mu\text{A}$	-5			
I_{CBO}	Collector – Cut-off Current $V_{CB} = -100\text{V}$ $T = 100^\circ\text{C}$			-0.1 -10	μA
I_{EBO}	Emitter Cut-off Current $V_{EB} = -4\text{V}$			-0.1	
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage $I_C = -500\text{mA}$ $I_B = -50\text{mA}^*$ $I_C = -1.0\text{A}$ $I_B = -100\text{mA}^*$ $I_C = -2\text{A}$ $I_B = -200\text{mA}^*$		-0.2	-0.3	V
			-0.35	-0.5	
			-0.8	-1.0	
$V_{BE(sat)}$	Base – Emitter Saturation Voltage $I_C = -1.0\text{A}$ $I_B = -100\text{mA}^*$		-1.0	-1.3	
$V_{BE(on)}$	Base – Emitter Turn-On Voltage $I_C = -1.0\text{A}$ $V_{CE} = -2\text{V}^*$		-0.95	-1.2	
H_{FE}	DC Current Gain $I_C = -50\text{mA}$ $V_{CE} = -2\text{V}^*$ $I_C = -500\text{mA}$ $V_{CE} = 2\text{V}^*$ $I_C = -1.0\text{A}$ $V_{CE} = -2\text{V}^*$ $I_C = -2\text{A}$ $V_{CE} = -2\text{V}^*$	70	200		—
		100	200	300	
		55	110		
		25	55		

* Pulse test $t_p = 300\text{ms}$, $\delta \leq 2\%$

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
f_T	Transition Frequency $I_C = -100\text{mA}$ $V_{CE} = -5\text{V}$ $f = 100\text{MHz}$	100	140		MHz
C_{obo}	Output Capacitance $V_{CB} = -10\text{V}$ $f = 1.0\text{MHz}$			30	pF
T_{on}	Switching Times $I_C = -500\text{mA}$ $V_{CC} = 10\text{V}$		40		ns
T_{off}	Switching Times $I_{B1} = I_{B2} = 50\text{mA}$		600		