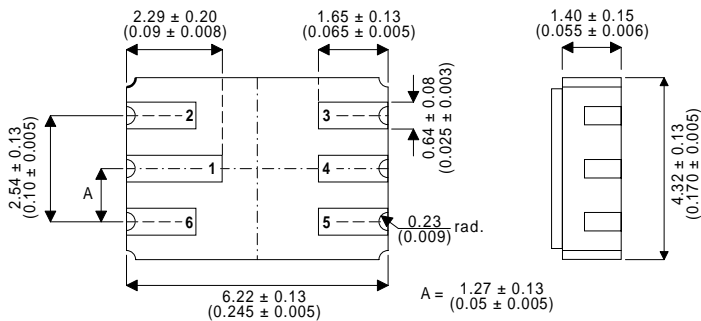


**NPN DUAL TRANSISTOR IN A  
HERMETICALLY SEALED CERAMIC  
SURFACE MOUNT PACKAGE  
FOR HIGH RELIABILITY APPLICATIONS**

**MECHANICAL DATA**

Dimensions in mm (inches)



**FEATURES**

- DUAL SILICON PLANAR NPN 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 @ $T_{amb} = 25^\circ\text{C}$	1W
$T_j T_{STG}$	Operating And Storage Temperature Range	-55 to 150°C

**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
$V_{(BR)EBO}$ Emitter – Base Breakdown Voltage	$I_E = 100\mu\text{A}$	5			V
$I_{CBO}$ Collector – Cut-off Current	$V_{CB} = 100\text{V}$ $T_C = 100^\circ\text{C}$			0.1	$\mu\text{A}$
				10	
$I_{EBO}$ Emitter Cut-off Current	$V_{EB} = 4\text{V}$			0.1	$\mu\text{A}$
$V_{CE(sat)}$ Collector – Emitter Saturation Voltage	$I_C = 1\text{A}$ $I_B = 100\text{mA}^*$		0.13	0.3	V
	$I_C = 2\text{A}$ $I_B = 200\text{mA}^*$		0.23	0.5	
$V_{BE(sat)}$ Base – Emitter Saturation Voltage	$I_C = 1\text{A}$ $I_B = 100\text{mA}^*$		0.9	1.25	V
$V_{BE(on)}$ Base – Emitter Turn-On Voltage	$I_C = 1\text{A}$ $V_{CE} = 2\text{V}^*$		0.8	1.0	V
$H_{FE}$ DC Current Gain	$I_C = 50\text{mA}$ $V_{CE} = 2\text{V}^*$	70	200		—
	$I_C = 500\text{mA}$ $V_{CE} = 2\text{V}^*$	100	200	300	
	$I_C = 1\text{A}$ $V_{CE} = 2\text{V}^*$	55	110		
	$I_C = 2\text{A}$ $V_{CE} = 2\text{V}^*$	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	$I_C = 100\text{mA}$ $V_{CE} = 5\text{V}$ $f = 100\text{MHz}$	140	175		MHz
$C_{obo}$ Output Capacitance	$V_{CB} = 10\text{V}$ $f = 1.0\text{MHz}$			30	pF
$T_{on}$ Switching Times	$I_C = 500\text{mA}$ $V_{CC} = 10\text{V}$		80		ns
$T_{off}$ Switching Times	$I_{B1} = I_{B2} = 50\text{mA}$		1200		