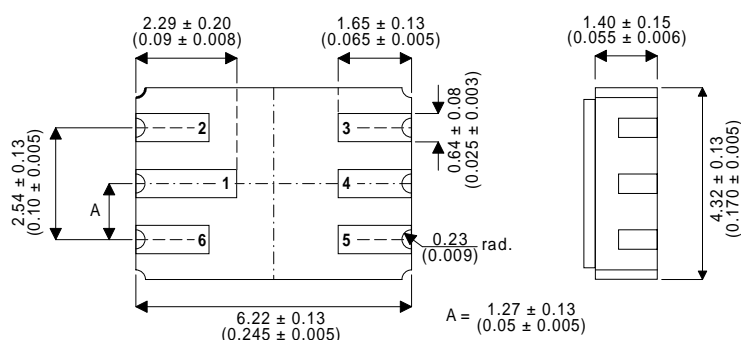


## DUAL HIGH SPEED, MEDIUM POWER PNP GENERAL PURPOSE TRANSISTOR IN A HERMETICALLY SEALED CERAMIC SURFACE MOUNT PACKAGE

**MECHANICAL DATA**  
Dimensions in mm (inches)



**LCC2 PACKAGE**  
Underside View

- |                            |                            |
|----------------------------|----------------------------|
| <b>PAD 1 - Collector 1</b> | <b>PAD 4 - Collector 2</b> |
| <b>PAD 2 - Base 1</b>      | <b>PAD 5 - Emitter 2</b>   |
| <b>PAD 3 - Base 2</b>      | <b>PAD 6 - Emitter 1</b>   |

**FEATURES**

- SILICON PLANAR EPITAXIAL DUAL PNP TRANSISTOR
- HERMETIC CERAMIC SURFACE MOUNT PACKAGE
- CECC SCREENING OPTIONS AVAILABLE
- SPACE QUALITY LEVELS OPTIONS
- HIGH SPEED SATURATED SWITCHING

**APPLICATIONS:**

For high reliability general purpose applications requiring small size and low weight devices.

<b>ABSOLUTE MAXIMUM RATINGS</b> ( $T_{case} = 25^{\circ}C$ unless otherwise stated)		<b>PER SIDE</b>	<b>TOTAL</b>
$V_{CBO}$	Collector – Base Voltage	-20V	
$V_{CEO}$	Collector – Emitter Voltage	-20V	
$V_{EBO}$	Emitter – Base Voltage	-4V	
$I_C$	Collector Current	-200mA	
$P_D$	Device Dissipation	300mW	500mW
$P_D$	Derate above 50°C	2mW / °C	3.3mW / °C
$R_{ja}$	Thermal Resistance Junction to Ambient	420°C / W	250°C / W
$T_j$	Max Junction Temperature	200°C	
$T_{stg}$	Storage Temperature	-65 to 200°C	

**ELECTRICAL CHARACTERISTICS** ( $T_{\text{case}} = 25^{\circ}\text{C}$  unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{\text{CEO(sus)}}^*$ Collector – Emitter Sustaining Voltage	$I_{\text{C}} = 10\text{mA}$	-20			V
$V_{\text{(BR)CBO}}^*$ Collector – Base Breakdown Voltage	$I_{\text{C}} = 10\mu\text{A}$	-20			V
$V_{\text{(BR)EBO}}^*$ Emitter – Base Breakdown Voltage	$I_{\text{E}} = 10\mu\text{A}$ $I_{\text{C}} = 0$	-4			V
$I_{\text{CES}}^*$ Collector Cut-off Current	$V_{\text{CE}} = 10\text{V}$ $V_{\text{BE}} = 0$			80	nA
	$V_{\text{CE}} = 10\text{V}$ $V_{\text{BE}} = 0$			10	$\mu\text{A}$
	$T_{\text{C}} = 125^{\circ}\text{C}$				
$V_{\text{CE(sat)}}^*$ Collector – Emitter Saturation Voltage	$I_{\text{C}} = 10\text{mA}$ $I_{\text{B}} = 1\text{mA}$			0.15	V
	$I_{\text{C}} = 30\text{mA}$ $I_{\text{B}} = 3\text{mA}$			0.20	
	$I_{\text{C}} = 100\text{mA}$ $I_{\text{B}} = 10\text{mA}$			0.60	
$V_{\text{BE(sat)}}^*$ Base – Emitter Saturation Voltage	$I_{\text{C}} = 10\text{mA}$ $I_{\text{B}} = 1\text{mA}$	0.78		0.98	V
	$I_{\text{C}} = 30\text{mA}$ $I_{\text{B}} = 3\text{mA}$	0.85		1.2	
	$I_{\text{C}} = 100\text{mA}$ $I_{\text{B}} = 10\text{mA}$			1.7	
$h_{\text{FE}}^*$ DC Current Gain	$I_{\text{C}} = 10\text{mA}$ $V_{\text{CE}} = 0.3\text{V}$	25			—
	$I_{\text{C}} = 30\text{mA}$ $V_{\text{CE}} = 0.5\text{V}$	30		120	
	$I_{\text{C}} = 100\text{mA}$ $V_{\text{CE}} = 1\text{V}$	15			
	$I_{\text{C}} = 30\text{mA}$ $V_{\text{CE}} = 0.5\text{V}$	12			

$T_{\text{amb}} = -55^{\circ}\text{C}$

\* Pulse test  $t_{\text{p}} = 300\mu\text{s}$ ,  $\delta \leq 2\%$

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$f_{\text{T}}$ Transition Frequency	$I_{\text{C}} = 30\text{mA}$ $V_{\text{CE}} = 10\text{V}$ $f = 100\text{MHz}$	400			MHz
$C_{\text{EBO}}$ Capacitance	$V_{\text{EB}} = 0.5\text{V}$ $I_{\text{C}} = 0$ $f = 1.0\text{MHz}$			6.0	pF
$C_{\text{CBO}}$ Input Capacitance	$V_{\text{CB}} = 5\text{V}$ $I_{\text{E}} = 0$ $f = 1.0\text{MHz}$			5.0	pF

**ELECTRICAL CHARACTERISTICS** ( $T_{\text{case}} = 25^{\circ}\text{C}$  unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$t_{\text{on}}$ Turn-on Time	$V_{\text{CC}} = 2\text{V}$ $I_{\text{C}} = 30\text{mA}$ $I_{\text{B1}} = 1.5\text{mA}$			60	ns
$t_{\text{off}}$ Turn-off Time	$V_{\text{CC}} = 2\text{V}$ $I_{\text{C}} = 30\text{mA}$ $I_{\text{B1}} = I_{\text{B2}} = 1.5\text{mA}$			90	ns



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