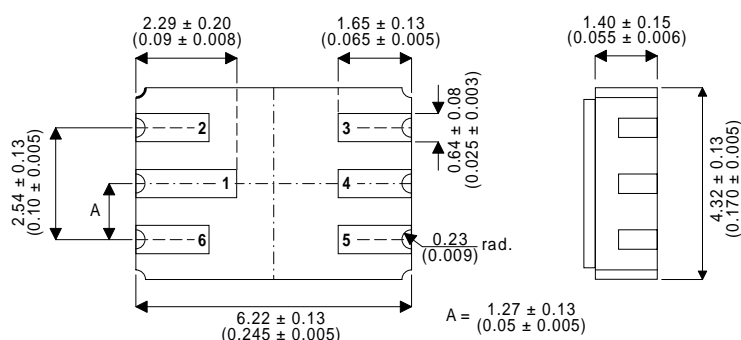


DUAL HIGH SPEED, MEDIUM POWER PNP GENERAL PURPOSE TRANSISTOR IN A HERMETICALLY SEALED CERAMIC SURFACE MOUNT PACKAGE

MECHANICAL DATA
Dimensions in mm (inches)



LCC2 PACKAGE
Underside View

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

PAD 4 - Collector 2
PAD 5 - Emitter 2
PAD 6 - Emitter 1

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.

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$ unless otherwise stated)		PER SIDE	TOTAL
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_{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	μA
	$T_{\text{C}} = 125^{\circ}\text{C}$				
$V_{\text{CE(sat)}}^*$ 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_{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_{T} Transition Frequency	$I_{\text{C}} = 30\text{mA}$ $V_{\text{CE}} = 10\text{V}$ $f = 100\text{MHz}$	400			MHz
C_{EBO} Capacitance	$V_{\text{EB}} = 0.5\text{V}$ $I_{\text{C}} = 0$ $f = 1.0\text{MHz}$			6.0	pF
C_{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_{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_{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