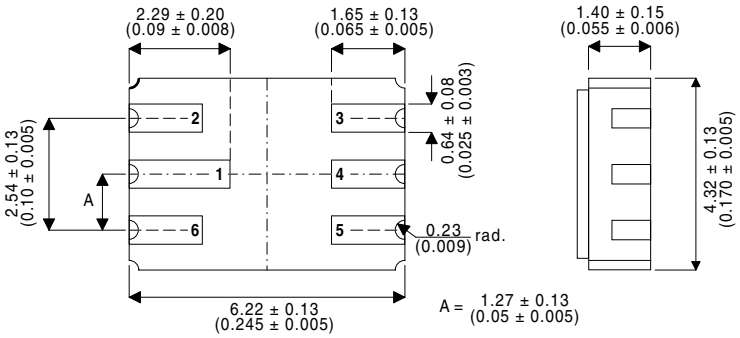
2N2894ADCSM

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 reliablitity general purpose applications requiring small size and low weight devices.

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)		**PER SIDE**	**TOTAL**
V_{CBO}	Collector – Base Voltage	–12V	
V_{CEO}	Collector – Emitter Voltage	–12V	
V_{EBO}	Emitter – Base Voltage	–4.5V	
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	

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

	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
$V_{(BR)CBO*}$	Collector – Base Breakdown Voltage	I_C = 10µA	I_E = 0	– 12			V
$V_{(BR)CEO}$	Collector – Emitter Breakdown Voltage	I_C = 10mA	I_B = 0	– 12			
$V_{(BR)EBO}$	Emitter – Base Breakdown Voltage	I_E = 100µA	I_C = 0	– 4.5			
I_{CBO}	Collector Cut-off Current	V_{CB} = –10V	T_{amb} = 125°C			– 10	µA
I_{CES}	Collector Cut-off Current	V_{BE} = 0	V_{CE} = –10V			– 50	nA
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	I_C = –10mA	I_B = –1.0mA			–0.130	V
		I_C = –30mA	I_B = –3mA			–0.190	
		I_C = –100mA	I_B = –10mA			– 0.450	
$V_{BE(sat)}$	Base – Emitter On Voltage	I_C = –10mA	I_B = –1.0mA	–0.78		–0.920	V
		I_C = –30mA	I_B = –3mA	–0.85		–1.15	
		I_C = –100mA	I_B = –10mA			–1.5	
h_{FE}	DC Current Gain	I_C = –10mA	V_{CE} = –0.3V	30			——
		I_C = –30mA	V_{CE} = –0.5V	40		150	
		I_C = –100mA	V_{CE} = –1.0V	30			
		I_C = –30mA	V_{CE} = –0.5V T_{amb} = -55°C	20			
f_T	Current Gain Bandwidth Product	V_{CE} = –10V I_C = –30mA	f = 100MHz	800			MHz
C_{ebo}	Emitter – Base – Capacitance	V_{EB} = –5V f = 140kHz	I_C = 0			6	pF
C_{cbo}	Collector – Base – Capacitance	V_{CB} = –5V f = 140kHz	I_E = 0			4.5	pF
t_{on}	Turn on Time	I_C = –30mA I_{B2} = –1.5mA	V_{CE} = –2V			60	ns
t_{off}	Turn off Time	I_C = –30mA I_{B1} = I_{B2}= –1.5mA	V_{CE} = –2V			35	ns

* Pulse Test: $t_p \leq 300\mu s$, $\delta \leq 2\%$.

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