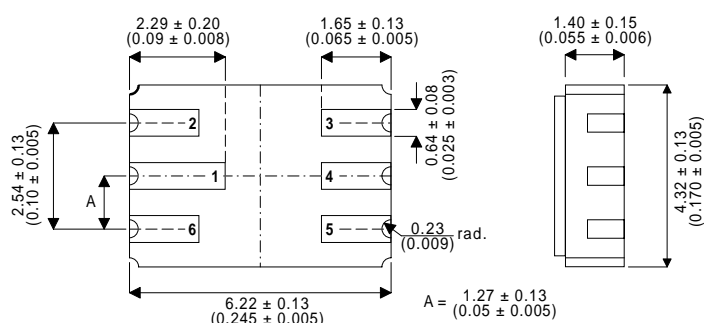# SEME LAB

2N2894DCSM

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 4 – Collector 2

PAD 2 – Base 1   PAD 5 – Emitter 2

PAD 3 – Base 2   PAD 6 – Emitter 1

FEATURES

- **SILICON PLANAR EPITAXIAL DUAL PNP TRANSISTOR**

- **HERMETIC CERAMIC SURFACE MOUNT PACKAGE**

- **SCREENING OPTIONS AVAILABLE**

- **HIGH SPEED, LOW SATURATION SWITCH**

APPLICATIONS:

Hermetically sealed dual surface mount version of the popular 2N2894 for high reliability applications requiring small size and low weight devices.

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise stated)

V_{CBO}	Collector – Base Voltage		-12V
V_{CEO}	Collector – Emitter Voltage		-12V
V_{EBO}	Emitter – Base Voltage		-4V
I_C	Collector Current		200mA
P_D	Total Device Dissipation	@ T_A =25°C	360mW
		Derate above 25°C	2.06mW / °C
P_D	Total Device Dissipation	@ T_C =25°C	1.2W
		Derate above 25°C	6.85mW / °C
T_{STG} , T_J	Operating and Storage Temperature Range		−65 to +200°C

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

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
$V_{(BR)CBO*}$	Collector – Base Breakdown Voltage	$I_C = 10\mu A$	$I_E = 0$	-12			V
$V_{(BR)CEO}$	Collector – Emitter Breakdown Voltage	$I_C = 10mA$	$I_B = 0$	-12			
$V_{(BR)EBO}$	Emitter – Base Breakdown Voltage	$I_E = 10\mu A$	$I_C = 0$	-4			
I_{CBO}	Collector Cut-off Current	$V_{CB} = -6V$	$T_{amb} = 125°C$			-10	μA
I_{CES}	Collector Cut-off Current	$V_{BE} = 0$	$V_{CE} = -6V$			-80	nA
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	$I_C = -10mA$	$I_B = -1mA$			-0.15	V
		$I_C = -30mA$	$I_B = -3mA$			-0.20	
		$I_C = -100mA$	$I_B = -10mA$			-0.50	
$V_{BE(sat)}$	Base – Emitter On Voltage	$I_C = -10mA$	$I_B = -1mA$	-0.78		-0.98	V
		$I_C = -30mA$	$I_B = -3mA$	-0.85		-1.2	
		$I_C = -100mA$	$I_B = -10mA$			-1.7	
h_{FE}	DC Current Gain	$I_C = -10mA$	$V_{CE} = -0.3V$	30			——
		$I_C = -30mA$	$V_{CE} = -0.5V$	40		150	
		$I_C = -100mA$	$V_{CE} = -1V$	25			
		$I_C = -30mA$	$V_{CE} = -0.5V$ $T_{amb} = 125°C$	17			
f_T	Current Gain Bandwidth Product	$V_{CE} = -10V$ $I_C = -30mA$	$f = 100MHz$	400			MHz
C_{ebo}	Emitter – Base – Capacitance	$V_{EB} = -5V$ $f = 1MHz$	$I_C = 0$			6	pF
C_{cbo}	Collector – Base – Capacitance	$V_{CB} = -5V$ $f = 1MHz$	$I_C = 0$			6	pF
t_{on}	Turn on Time	$I_C = -30mA$ $I_{B2} = -1.5mA$	$V_{CE} = -2V$			60	ns
t_{off}	Turn off Time	$I_C = -30mA$ $I_{B1} = I_{B2} = -1.5mA$	$V_{CE} = -2V$			9	ns

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