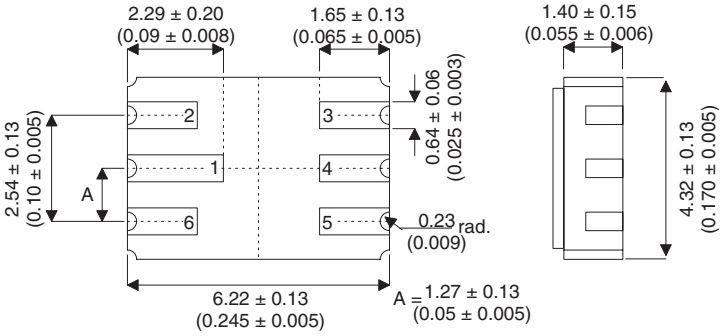
SEME LAB

2N2907ADCSM

DUAL HIGH SPEED, MEDIUM POWER PNP SWITCHING TRANSISTOR IN A HERMETICALLY SEALED CERAMIC SURFACE MOUNT PACKAGE FOR HIGH RELIABILITY APPLICATIONS

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

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

APPLICATIONS:

Hermetically sealed dual surface mount version of the popular 2N2907A for high reliability / space applications requiring small size and low weight devices.

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

	PER SIDE	
V_{CBO}	Collector - Base Voltage	–60V
V_{CEO}	Collector - Emitter Voltage	–60V
V_{EBO}	Emitter - Base Voltage	–5V
I_C	Collector Current	-600mA
	TOTAL DEVICE	
P_D	Total Device Dissipation	350mW
P_D	Derate above 50°C	2.0mW / °C
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	130°C / W
$R_{\theta JC}$	Thermal Resistance Junction to Case	60°C / W
T_{STG}, T_j	Storage Temperature, Operating temp range	–55 to 200°C

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ELECTRICAL CHARACTERISTICS PER SIDE (T_C = 25°C unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
$V_{CEO(BR)*}$	Collector – Emitter Breakdown Voltage	I_C = -10mA		–60			V
$V_{CBO(BR)*}$	Collector – Base Breakdown Voltage	I_C = -10μA		–60			V
$V_{(BR)EBO*}$	Emitter – Base Breakdown Voltage	I_E = -10μA	I_C = 0	–5			V
I_{CEX*}	Collector Cut-off Current	V_{CE} = -30V	V_{BE} = -0.5V			-50	nA
I_{CBO*}	Collector – Base Cut-off Current	I_E = 0	V_{CB} = -50V			-0.01	μA
		T_C = 125°C				-10	
I_{BEO}	Base Cut-off Current	V_{CE} = -30V	V_{BE} = -0.5V			-50	nA
$V_{CE(sat)*}$	Collector – Emitter Saturation Voltage	I_C = -150mA	I_B = -15mA			–0.4	V
		I_C = -500mA	I_B = -50mA			–1.6	
$V_{BE(sat)*}$	Base – Emitter Saturation Voltage	I_C = -150mA	I_B = -15mA			–1.3	V
		I_C = -500mA	I_B = -50mA			–2.6	
h_{FE*}	DC Current Gain	I_C =- 0.1mA	V_{CE} = -10V	75			—
		I_C = -1.0mA	V_{CE} = -10V	100			
		I_C = -10mA	V_{CE} = -10V	100			
		I_C = -150mA	V_{CE} = -10V	100		300	
		I_C = -500mA	V_{CE} = -10V	50			

* Pulse test t_p = 300μs , δ ≤ 2%

DYNAMIC CHARACTERISTICS PER SIDE (T_C = 25°C unless otherwise stated)

Parameter		Test Conditions			Min.	Typ.	Max.	Unit
f_T	Transition Frequency	I_C = -50mA	V_{CE} = -20V	f = 100MHz	200			MHz
C_{ob}	Output Capacitance	V_{CB} = -10V	I_E = 0	f = 1.0MHz			8	pF
C_{ib}	Input Capacitance	V_{BE} = -2V	I_C = 0	f = 1.0MHz			30	pF

SWITCHING CHARACTERISTICS PER SIDE (RESISTIVE LOAD)

(T_C = 25°C unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
t_{on}	Turn-on Time	V_{CC} = -30V	I_C = -150mA			45	ns
t_{off}	Turn-off Time	I_{B1} = -15mA				300	ns

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