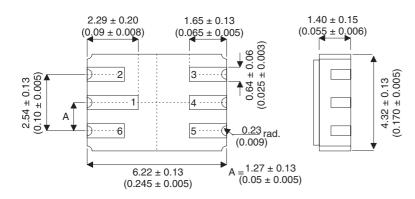
2N2907ADCSM



MECHANICAL DATA

Dimensions in mm (inches)

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



LCC2 PACKAGE Underside View

PAD 1 – Collector 1	
PAD 2 – Base 1	
PAD 3 – Base 2	

PAD 5 – Emitter 2 PAD 6 – Emitter 1

PAD 4 – Collector 2

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 ($T_C = 25^{\circ}C$ 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
PD	Derate above 50°C	2.0mW / °C
$R_{ hetaJA}$	Thermal Resistance Junction to Ambient	130°C / W
$R_{ extsf{ heta}JC}$	Thermal Resistance Junction to Case	60°C / W
T _{STG,} Tj	Storage Temperature, Operating temp range	–55 to 200°C

Semelab Plc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

Semelab plc.Telephone +44(0)1455 556565.Fax +44(0)1455 552612.E-mail: sales@semelab.co.ukWebsite: http://www.semelab.co.uk





ELECTRICAL CHARACTERISTICS PER SIDE ($T_C = 25^{\circ}C$ unless otherwise stated)

Parameter		Test Conditions		Min.	Тур.	Max.	Unit
V _{CEO(BR)*}	Collector – Emitter Breakdown Voltage	I _C = -10mA		-60			V
V _{CBO(BR)*}	Collector – Base Breakdown Voltage	I _C = -10μΑ		-60			V
V _{(BR)EBO*}	Emitter – Base Breakdown Voltage	I _E = -10μΑ	$I_{\rm C} = 0$	-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	۸
	Collector – Base Cut-oll Current	T _C = 125°C				-10	μA
I _{BEO}	Base Cut-off Current	$V_{CE} = -30V$	$V_{BE} = -0.5V$			-50	nA
V	Collector – Emitter Saturation Voltage	I _C = -150mA	I _B = -15mA			-0.4	V
V _{CE(sat)*}		I _C = -500mA	I _B = -50mA			-1.6	
V	Base – Emitter Saturation Voltage	I _C = -150mA	I _B = -15mA			-1.3	V
V _{BE(sat)*}		I _C = -500mA	I _B = -50mA			-2.6	
	DC Current Gain	I _C =- 0.1mA	$V_{CE} = -10V$	75			
h _{FE*}		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 = 300 μs , δ \leq 2%

DYNAMIC CHARACTERISTICS PER SIDE ($T_C = 25^{\circ}C$ unless otherwise stated)

	Parameter	Test Conditions		Min.	Тур.	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	$V_{BE} = -2V$	$I_{\rm C} = 0$	f = 1.0MHz			30	pF

SWITCHING CHARACTERISTICS PER SIDE (RESISTIVE LOAD)

 $(T_C = 25^{\circ}C \text{ unless otherwise stated})$

	Parameter	Test Conditions	Min.	Тур.	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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