2N1132CSM



MECHANICAL DATA

Dimensions in mm (inches)

HIGH SPEED MEDIUM POWER PNP SWITCHING TRANSISTOR



FEATURES

- SILICON PNP TRANSISTOR.
- HIGH SPEED SWITCHING
- SCREENING OPTIONS AVAILABLE

APPLICATIONS

• SMALL SIGNAL GENERAL PURPOSE AND SWITCHING APPLICATIONS

LCC1 PACKAGE

Pad 1 - Base Pad 2 - Emitter Pad 3 - Collector

ABSOLUTE MAXIMUM RATINGS

$T_{CASE} = 25$	℃ unless otherwise stated	
V _{CBO}	Collector - Base Voltage	50V
V _{CEO}	Collector - Emitter Voltage ($I_B = 0$)	40V
V _{EBO}	Emitter – Base Voltage ($I_c = 0$)	5V
I _C	Continuous Collector Current	600mA
PD	Total Power Dissipation at $T_{Amb} = 25 ^{\circ}\text{C}$	400mW
	Derate Above 25℃	2.7mW/℃
T_{stg},T_{J}	Operating and Storage Temperature Range	-55 to +175℃

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THERM/	AL CHARACTERISTICS	Max.	Unit
R _{th} j-Amb	Thermal resistance to ambient	375	°C/W

ELECTRICAL CHARACTERISTICS (T_{Amb} = 25 °C unless otherwise stated)

	Parameter	Test Conditions		Min.	Тур.	Max.	Unit	
$V_{(BR)CBO}^{*}$	Collector-Base Breakdown Voltage	I _C = 10μΑ	$I_E = 0$	50			V	
$V_{(BR)CEO}^{\star}$	Collector-Emitter Breakdown Voltage	$I_{\rm C} = 10 {\rm mA}$	$I_{B} = 0$	40			v	
I _{CBO}	Collector to Base Cut-Off Current	I _E = 0	$V_{CB} = 50V$			10	μΑ	
		I _E = 0	$V_{CB} = 30V$			1		
			T _{amb} =150 ℃			100		
I _{EBO}	Emitter to Base Cut-Off Current	$I_{\rm C} = 0$	$V_{EB} = 5V$			100		
I _{CER}	Collector to Emitter Cut-Off Current	R _{BE} <= 10Ω	$V_{CE} = 50V$			10	mA	
h _{FE} *	DC Current Gain	V _{CE} = 10V	I _C = 150mA	30		100		
			$I_{\rm C} = 5 {\rm mA}$	25				
$V_{CE(SAT)}^{*}$	Collector To Emitter Saturation Voltage	– I _C = 150mA	1 150m A 1 15m A	1. 15~^			1.3	V
V _{BE(SAT)} *	Base To Emitter Saturation Voltage		= IDUMA $I_B = IDMA$			1.5	v	

DYNAMIC CHARACTERISTICS

C _{OBO}	Output Capacitance	$V_{CB} = 10V$ $I_E = 0$		45	
		f = 1.0MHz			nE
C _{IBO}	Input Capacitance	$V_{EB} = 0.5V$ $I_C = 0$		80	pi
		f = 1.0MHz			
h _{fe}	Small Signal Current Gain	$I_{\rm C} = 50 {\rm mA}$ $V_{\rm CE} = 10 {\rm V}$	3.0	20	
		f = 20MHz			
t _d	Delay Time	$V_{\rm CC} = 30V$		15	
tr	Rise Time			25	nQ
t _s	Storage Time	$I_{B1} - I_{B2} = 15mA$		80	110
t _f	Fall Time			25	

* Pulse test $t_p = 300 \mu s$, $\delta < 2\%$

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