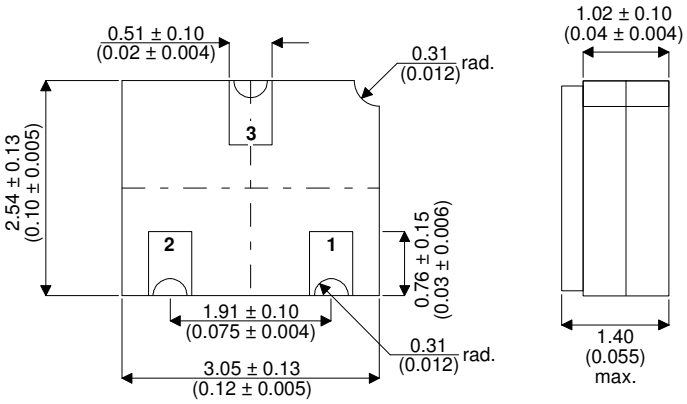
2N1132CSM

MECHANICAL DATA

Dimensions in mm (inches)



LCC1 PACKAGE

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

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**

ABSOLUTE MAXIMUM RATINGS

T_{CASE} = 25°C 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
P_D	Total Power Dissipation at T_{Amb} = 25°C	400mW
	Derate Above 25°C	2.7mW/°C
T_{stg}, T_J	Operating and Storage Temperature Range	-55 to +175°C

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THERMAL CHARACTERISTICS

		Max.	Unit
R_{th} j-Amb	Thermal resistance to ambient	375	℃/W

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

	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
$V_{(BR)CBO}$*	Collector-Base Breakdown Voltage	I_C = 10µA	I_E = 0	50			V
$V_{(BR)CEO}$*	Collector-Emitter Breakdown Voltage	I_C = 10mA	I_B = 0	40			
I_{CBO}	Collector to Base Cut-Off Current	I_E = 0	V_{CB} = 50V			10	µA
		I_E = 0	V_{CB} = 30V			1	
			T_{amb} =150℃			100	
I_{EBO}	Emitter to Base Cut-Off Current	I_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_C = 5mA	25			
$V_{CE(SAT)}$*	Collector To Emitter Saturation Voltage	I_C = 150mA	I_B = 15mA			1.3	V
$V_{BE(SAT)}$*	Base To Emitter Saturation Voltage					1.5	

DYNAMIC CHARACTERISTICS

C_{OBO}	Output Capacitance	V_{CB} = 10V f = 1.0MHz	I_E = 0			45	pF
C_{IBO}	Input Capacitance	V_{EB} = 0.5V f = 1.0MHz	I_C = 0			80	
| h_{fe} |	Small Signal Current Gain	I_C = 50mA f = 20MHz	V_{CE} = 10V	3.0		20	
t_d	Delay Time	V_{CC} = 30V I_C = 150mA I_{B1} - I_{B2} = 15mA				15	nS
t_r	Rise Time					25	
t_s	Storage Time					80	
t_f	Fall Time					25	

* Pulse test t_p = 300µs, δ < 2%

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