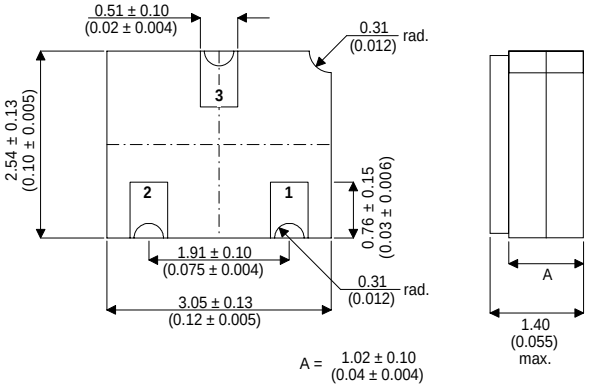
2N2484CSM

HIGH SPEED, MEDIUM POWER, NPN GENERAL PURPOSE TRANSISTOR IN A HERMETICALLY SEALED CERAMIC SURFACE MOUNT PACKAGE FOR HIGH RELIABILITY APPLICATIONS

MECHANICAL DATA
Dimensions in mm (inches)



SOT23 CERAMIC
(LCC1 PACKAGE)

Underside View

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

FEATURES

- **SILICON PLANAR EPITAXIAL NPN TRANSISTOR**
- **HERMETIC CERAMIC SURFACE MOUNT PACKAGE (SOT23 COMPATIBLE)**
- **CECC SCREENING OPTIONS**

APPLICATIONS:

Hermetically sealed surface mount version of the popular 2N2484 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		60V
V_{CEO}	Collector – Emitter Voltage		60V
V_{EBO}	Emitter – Base Voltage		6V
I_C	Collector Current		50mA
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

SEME LAB

2N2484CSM

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 = 10µA	I_E = 0	60			V
$V_{(BR)CEO}$	Collector – Emitter Breakdown Voltage	I_C = 10mA	I_B = 0	60			
$V_{(BR)EBO}$	Emitter – Base Breakdown Voltage	I_E = 10µA	I_C = 0	6			
I_{CBO}	Collector Cut-off Current	V_{CB} = 45V	I_E = 0			10	nA
I_{EBO}	Emitter Cut-off Current	V_{BE} = 5V	I_C = 0			10	
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	I_C = 1mA	I_B = 0.1mA			0.35	V
$V_{BE(on)}$	Base – Emitter On Voltage	I_C = 0.1mA	V_{CE} = 5V	0.5		0.7	
h_{FE}	DC Current Gain	I_C = 1µA	V_{CE} = 5V	30			—
		I_C = 10µA	V_{CE} = 5V	100		500	
		I_C = 100µA	V_{CE} = 5V	175			
		I_C = 500µA	V_{CE} = 5V	200			
		I_C = 1mA	V_{CE} = 5V	250			
		I_C = 10mA	V_{CE} = 5V			800	
f_T	Current Gain Bandwidth Product	f = 5MHz	I_C = 0.05mA	15			MHz
		f = 30MHz	I_C = 0.5mA	60			
C_{ob}	Output Capacitance	V_{CB} = 5V f = 140kHz	I_E = 0			6	pF
C_{ib}	Input Capacitance	V_{BE} = 0.5V f = 140kHz	I_C = 0			6	pF
h_{ie}	Input Impedance	V_{CE} = 5V		3.5		24	kΩ
h_{re}	Voltage Feedback Ratio	I_C = 1mA				800	x 10^{-6}
h_{fe}	Small Signal Current Gain	f = 1kHz		150		900	—

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