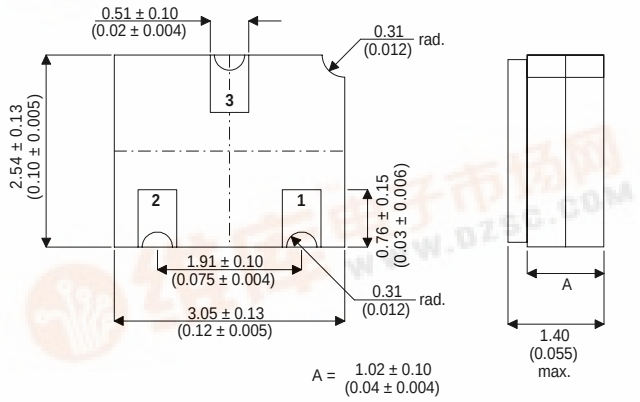
SEME LAB

2N4393CSM

SMALL SIGNAL N–CHANNEL J–FET IN A HERMETICALLY SEALED CERAMIC SURFACE MOUNT PACKAGE FOR HIGH RELIABILITY APPLICATIONS

MECHANICAL DATA
Dimensions in mm (inches)



Underside View

PAD 1 – Source PAD 2 – Drain PAD 3 – Gate

SOT23 CERAMIC (CSM)
LCC1 PACKAGE

FEATURES

- HERMETIC CERAMIC SURFACE MOUNT PACKAGE (SOT23 COMPATIBLE)
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVELS OPTIONS

APPLICATIONS:

Hermetically sealed surface mount version of the popular 2N4393 for high reliability / space applications requiring small size and low weight devices.

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25°C unless otherwise stated)

V_{GD}	Gate – Drain Voltage	–35V
V_{GS}	Gate – Source Voltage	–35V
I_G	Gate Current	50mA
P_D	Power Dissipation	350mW
	Derate	2.8mW / °C
T_j	Operating Junction Temperature Range	–55 to 150°C
T_{stg}	Storage Temperature Range	–55 to 150°C

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

	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
	STATIC CHARACTERISTICS						
$V_{(BR)GSS}$	Gate – Source Breakdown Voltage	V_{DS} = 0V	I_G = –1μA	–35	–55		V
$V_{GS(off)}$	Gate – Source Cut–off Voltage	V_{DS} = 15V	I_D = 10nA	–0.5		–3	V
I_{DSS}*	Saturation Current	V_{DS} = 20V	V_{GS} = 0V	5			mA
I_{GSS}	Gate Reverse Current	V_{GS} = –5V			–5	–100	pA
		V_{DS} = 0V	T_{amb} = 125°C		–3	–200	nA
$I_{D(off)}$	Drain Cut–off Current	V_{DG} = 10V	V_{GS} = –10V		5	100	pA
		V_{DS} = 10V	V_{GS} = –10V T_{amb} = 125°C		3	200	nA
$V_{DS(on)}$	Drain – Source On Voltage	V_{GS} = 0V	I_D = 3mA		0.25	0.4	V
$R_{DS(on)}$	Drain – Source On Resistance	V_{GS} = 0V	I_D = 1mA			100	Ω
	DYNAMIC CHARACTERISTICS						
$R_{DS(on)}$	Drain – Source On Resistance	V_{GS} = 0V f = 1kHz	I_D = 0mA			100	Ω
C_{ISS}	Common – Source Input Capacitance	V_{DS} = 20V f = 1MHz	V_{GS} = 0V		13	16	pF
C_{RSS}	Common – Source Reverse Transfer Capacitance	V_{DS} = 0V f = 1MHz	V_{GS} = –5V		4	5	pF
$\overline{e}_n$	Equivalent Input Noise Voltage	V_{DG} = 10V f = 1kHz	I_D = 10mA		3.0		$\frac{nV}{\sqrt{Hz}}$