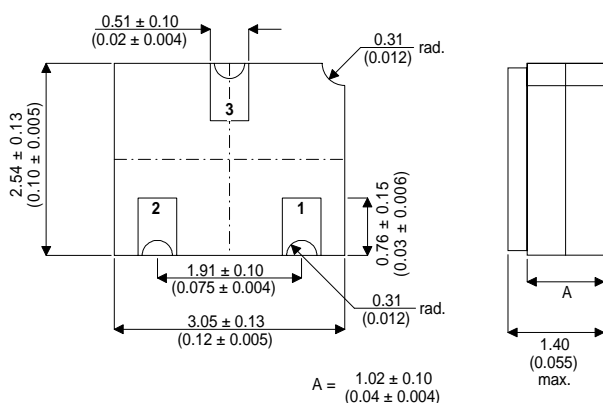


## SMALL SIGNAL N-CHANNEL J-FET IN A HERMETICALLY SEALED CERAMIC SURFACE MOUNT PACKAGE FOR HIGH RELIABILITY APPLICATIONS

**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 ( $T_{amb} = 25^{\circ}\text{C}$ 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

**ELECTRICAL CHARACTERISTICS** ( $T_{amb} = 25^{\circ}\text{C}$  unless otherwise stated)

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