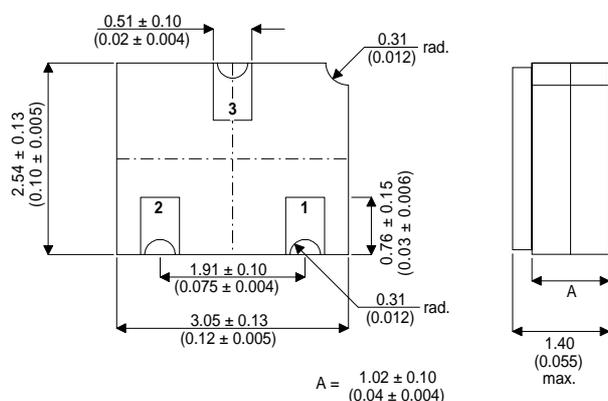


## SMALL SIGNAL N-CHANNEL J-FET IN A HERMETICALLY SEALED CERAMIC SURFACE MOUNT PACKAGE FOR HIGH RELIABILITY APPLICATIONS

**MECHANICAL DATA**  
Dimensions in mm (inches)



**SOT23 CERAMIC  
(LCC1 PACKAGE)**

**Underside View**

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

### FEATURES

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

### APPLICATIONS:

Hermetically sealed surface mount version of the popular 2N4392 for high reliability / space applications requiring small size and low weight devices.

### ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated)

$V_{DS}$	Drain – Source Voltage	40V
$V_{DG}$	Drain – Gate Voltage	40V
$V_{GS}$	Gate – Source Voltage	40V
$I_G$	Forward Gate Current	50mA
$P_D$	Power Dissipation @ $T_A = 25^{\circ}\text{C}$	500mW
	Derate above $25^{\circ}\text{C}$	2.85mW / $^{\circ}\text{C}$
$T_J, T_{STG}$	Operating Junction and Storage Temperature Range	$-65$ to $+175^{\circ}\text{C}$

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{(BR)GSS}$ Gate – Source Breakdown Voltage	$V_{DS} = 0$ $I_G = 1\mu\text{A}$	40			V
$V_{GS}$ Gate – Source Voltage	$V_{DS} = 20\text{V}$ $I_D = 1\text{nA}$	-2		-5	
$V_{GS(f)}$ Gate – Source Forward Voltage	$V_{DS} = 0$ $I_G = 1\text{mA}$			1	
$I_{GSS}$ Gate Reverse Current	$V_{DS} = 0$ $V_{GS} = 20\text{V}$			0.1	nA
$I_{D(off)}$ Drain Cut-off Current	$V_{DS} = 20\text{V}$ $V_{GS} = -7\text{V}$			0.1	
$I_{DSS}^*$ Zero Gate Voltage Drain Current	$V_{DS} = 20\text{V}$ $V_{GS} = 0$	25		75	mA
$V_{DS(on)}$ Drain – Source On Voltage	$V_{GS} = 0$ $I_D = 6\text{mA}$			0.4	V
$R_{DS(on)}$ Drain – Source On Resistance	$V_{GS} = 0$ $I_D = 1\text{mA}$			60	$\Omega$
$C_{ISS}$ Input Capacitance	$V_{DS} = 20\text{V}$ $V_{GS} = 0$ $f = 1\text{MHz}$			14	pF
$C_{RSS}$ Reverse Transfer Capacitance	$V_{DS} = 0$ $V_{GS} = -7\text{V}$ $f = 1\text{MHz}$			3.5	
$R_{DS(on)}$ Static Drain – Source On Resistance	$V_{GS} = 0$ $I_D = 1\text{mA}$			60	$\Omega$
$t_r$ Rise Time	$I_{D(on)} = 6\text{mA}$			5	ns
$t_f$ Fall Time	$V_{GS(off)} = 7\text{V}$			20	
$t_{on}$ Turn-On Time	$I_{D(on)} = 6\text{mA}$			15	
$t_{off}$ Turn-Off Time	$V_{GS(off)} = 7\text{V}$			35	

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