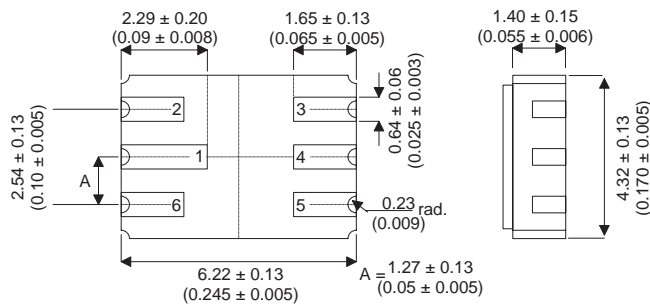


## SMALL SIGNAL DUAL N-CHANNEL J-FET IN A HERMETICALLY SEALED CERAMIC SURFACE MOUNT PACKAGE FOR HIGH RELIABILITY APPLICATIONS

### MECHANICAL DATA

Dimensions in mm (inches)



### FEATURES

- HERMETIC CERAMIC SURFACE MOUNT PACKAGE
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVELS OPTIONS

### LCC2 Package Underside View

Pad 1 - Gate 1      Pad 4 - Gate 2  
Pad 2 - Source 1    Pad 5 - Source 2  
Pad 3 - Drain 2     Pad 6 - Drain 1

### APPLICATIONS:

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

ABSOLUTE MAXIMUM RATINGS (T <sub>amb</sub> = 25°C unless otherwise stated)		EACH SIDE	TOTAL DEVICE
V <sub>GD</sub>	Gate – Drain Voltage	–35V	–35V
V <sub>GS</sub>	Gate – Source Voltage	–35V	–35V
I <sub>G</sub>	Gate Current	50mA	50mA
P <sub>D</sub>	Power Dissipation	350mW	600mW/°C
	Derate	2.8mW/ °C	3.4mW/°C
T <sub>j</sub>	Operating Junction Temperature Range	–55 to 150°C	–55 to 150°C
T <sub>stg</sub>	Storage Temperature Range	–55 to 150°C	–55 to 150°C

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**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		$\frac{nV}{\sqrt{Hz}}$

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