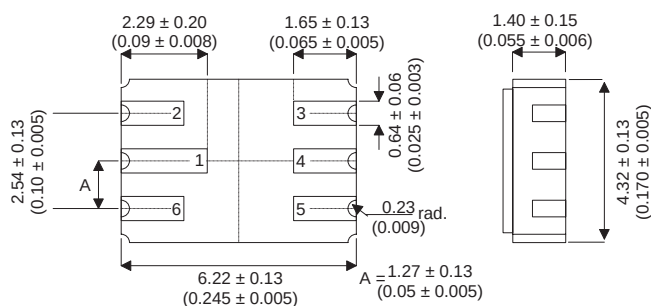


SMALL SIGNAL DUAL N-CHANNEL J-FET IN A HERMETICALLY SEALED CERAMIC SURFACE MOUNT PACKAGE FOR HIGH RELIABILITY APPLICATIONS

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_{amb} = 25°C unless otherwise stated)		EACH SIDE	TOTAL DEVICE
V _{GD}	Gate – Drain Voltage	–35V	–35V
V _{GS}	Gate – Source Voltage	–35V	–35V
I _G	Gate Current	50mA	50mA
P _D	Power Dissipation	350mW	600mW/°C
	Derate	2.8mW/ °C	3.4mW/°C
T _j	Operating Junction Temperature Range	–55 to 150°C	–55 to 150°C
T _{stg}	Storage Temperature Range	–55 to 150°C	–55 to 150°C

Semelab Plc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
STATIC CHARACTERISTICS					
$V_{(BR)GSS}$ Gate – Source Breakdown Voltage	$V_{DS} = 0V$ $I_G = -1\mu A$	-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	Ω
DYNAMIC CHARACTERISTICS					
$R_{DS(on)}$ Drain – Source On Resistance	$V_{GS} = 0V$ $I_D = 0mA$ $f = 1kHz$			100	Ω
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		$\frac{nV}{\sqrt{Hz}}$