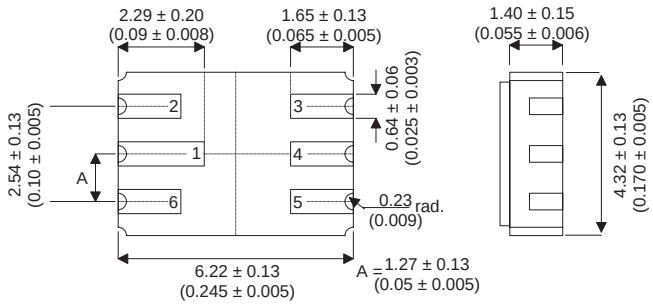
2N4393DCSM

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)



LCC2 Package
Underside View

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

FEATURES

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

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. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.
E-mail: sales@semelab.co.uk Website: http://www.semelab.co.uk

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SEME LAB

2N4393DCSM

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
$V_{GSS(off)}$	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		$\frac{nV}{\sqrt{Hz}}$

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