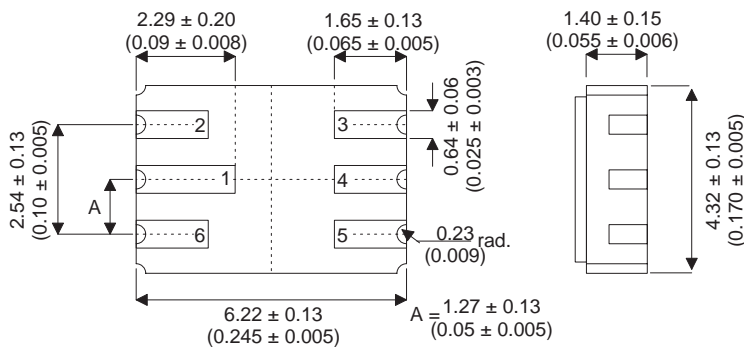


MECHANICAL DATA

Dimensions in mm (inches)

**DUAL N-CHANNEL
ENHANCEMENT MODE
MOS TRANSISTOR**



FEATURES

- $V_{(BR)DSS} = 60V$
- $R_{DS(ON)} = 7.5\Omega$
- $I_D = 0.115A$

**CERAMIC
LCC2 PACKAGE
(underside view)**

**PAD 1 - Drain 1
PAD 2 - Gate 1
PAD 3 - Gate 2**

**PAD 4 - Drain 2
PAD 5 - Source 2
PAD 6 - Source 1**

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

		PER SIDE	TOTAL DEVICE
V_{DS}	Drain – Source Voltage		60V
V_{GS}	Gate – Source Voltage		$\pm 40V$
I_D	Drain Current		$\pm 0.115A$
I_{DM}	Pulsed Drain Current *		0.8A
P_D	Power Dissipation	200mW	400mW
	Derate Above 25°C	1.60mW/°C	2.0mW/°C
T_j	Operating Junction Temperature Range		-55 to 150°C
T_{stg}	Storage Temperature Range		-55 to 150°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient		625°C/W 250°C/W

* Pulse width limited by maximum junction temperature.

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 ($T_{CASE} = 25^{\circ}C$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit	
STATIC CHARACTERISTICS						
$V_{(BR)DSS}$	Gate – Source Breakdown Voltage	$V_{GS} = 0V$ $I_D = 10\mu A$	60	70		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS} = V_{GS}$ $I_D = 0.25mA$	1	2.15	2.5	
I_{GSS}	Gate – Body Leakage Current	$V_{GS} = \pm 20V$ $V_{DS} = 0V$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS} = 60V$ $V_{GS} = 0V$ $T_{CASE} = 125^{\circ}C$			1 500	μA
$I_{D(on)*}$	On–State Drain Current	$V_{DS} \geq 2V_{DS(ON)}$ $V_{GS} = 10V$	500	1000		mA
$R_{DS(on)*}$	Drain – Source On Resistance	$V_{GS} = 5V$ $I_D = 50mA$ $T_{CASE} = 125^{\circ}C$		5	7.5	Ω
		$V_{GS} = 10V$ $I_D = 0.5A$ $T_{CASE} = 125^{\circ}C$		9	13.5	
		$V_{GS} = 10V$ $I_D = 0.5A$ $T_{CASE} = 125^{\circ}C$		2.5	7.5	
$V_{DS(on)*}$	Drain – Source On Voltage	$V_{GS} = 5V$ $I_D = 50mA$		0.25	0.375	V
		$V_{GS} = 10V$ $I_D = 0.5A$ $T_{CASE} = 125^{\circ}C$		1.25	3.75	
		$V_{GS} = 10V$ $I_D = 0.5A$ $T_{CASE} = 125^{\circ}C$		2.2	6.75	
g_{FS*}	Forward Transconductance	$V_{DS} = 10V$ $I_D = 0.2A$	80	170		ms
g_{OS*}	Common Source Output Conductance	$V_{DS} = 5V$ $I_D = 50mA$		500		μs
DYNAMIC CHARACTERISTICS						
C_{iss}	Input Capacitance	$V_{DS} = 25V$		16	50	pF
C_{oss}	Output Capacitance	$V_{GS} = 0V$		11	25	
C_{rss}	Reverse Transfer Capacitance	$f = 1MHz$		2	5	
SWITCHING CHARACTERISTICS						
t_{ON}	Turn–On Time	$V_{DD} = 30V$ $V_{GEN} = 10V$ $R_L = 150\Omega$ $R_G = 25\Omega$		7	20	ns
t_{OFF}	Turn–Off Time	$I_D = 0.2A$		7	20	

* Pulse Test: $PW = 80 \mu s$, $\delta \leq 1\%$