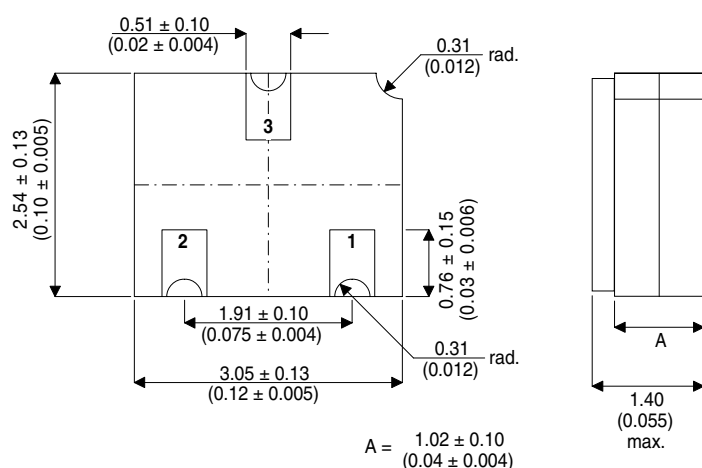


MECHANICAL DATA

Dimensions in mm (inches)

N-CHANNEL ENHANCEMENT MODE MOS TRANSISTOR



**SOT23 CERAMIC
(LCC1 PACKAGE)**

Underside View

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

FEATURES

- $V_{(BR)DSS} = 60V$
- $RDS_{(ON)} = 5\Omega$
- $I_D = 200mA$
- **Hermetic Ceramic Surface Mount package**
- **Screening Options Available**

ABSOLUTE MAXIMUM RATINGS (T_{CASE} = 25°C unless otherwise stated)

V _{DS}	Drain – Source Voltage	60V
V _{GS}	Gate – Source Voltage	±40V
I _D	Drain Current @ T _{CASE} = 25°C	200mA
I _{DM}	Pulsed Drain Current *	500mA
P _D	Power Dissipation @ T _{CASE} = 25°C	300mW
T _j	Operating Junction Temperature Range	–55 to 150°C
T _{stg}	Storage Temperature Range	–55 to 150°C

* 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°C unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
STATIC CHARACTERISTICS							
V _{(BR)DSS}	Drain – Source Breakdown Voltage	V _{GS} = 0V	I _D = 10μA	60	70		V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS}	I _D = 0.25mA	0.8		3.0	
I _{GSS}	Gate – Body Leakage Current	V _{GS} = ±20V	V _{DS} = 0V			-10	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 60V	V _{GS} = 0V			1.0	μA
			T _{CASE} = 125°C			1.0	mA
I _{D(on)*}	On–State Drain Current	V _{DS} ≥2V _{DS(on)}	V _{GS} = 4.5V	75			mA
R _{DS(on)*}	Drain – Source On Resistance	V _{GS} = 10V				5	Ω
		I _D = 0.5A	T _{CASE} = 125°C			9	
V _{DS(on)*}	Drain – Source On Voltage	V _{GS} = 4.5V	I _D = 75mA			0.4	V
		V _{GS} = 10V	I _D = 0.5A			2.5	
g _{FS*}	Forward Transconductance	V _{GS} = 10V	I _D = 0.5A	100			ms
DYNAMIC CHARACTERISTICS							
C _{iss}	Input Capacitance	V _{DS} = 25V				60	pF
C _{oss}	Output Capacitance	V _{GS} = 0V				25	
C _{rss}	Reverse Transfer Capacitance	f = 1MHz				5	
SWITCHING CHARACTERISTICS							
t _{ON}	Turn–On Time	V _{DD} = 30V	V _{GEN} = 10V			10	ns
t _{OFF}	Turn–Off Time	R _L = 150Ω	R _G = 25Ω			10	
		I _D = 0.2A					

* Pulse Test: PW = 80 μs , δ ≤ 1%

Parameter	Min.	Typ.	Max.	Unit
R _{θJA} Thermal Resistance, Junction to Ambient			416	°C/W