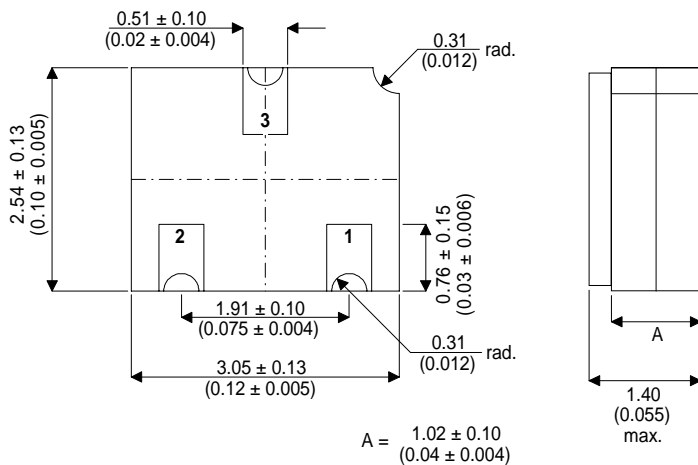


**MECHANICAL DATA**

Dimensions in mm (inches)



**SOT23 CERAMIC  
(LCC1 PACKAGE)**

**Underside View**

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

**N-CHANNEL  
ENHANCEMENT MODE  
MOS TRANSISTOR**

**FEATURES**

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

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

$V_{DS}$	Drain – Source Voltage	60V
$V_{GS}$	Gate – Source Voltage	$\pm 40V$
$I_D$	Drain Current @ $T_{CASE} = 25^\circ C$	200mA
$I_{DM}$	Pulsed Drain Current *	500mA
$P_D$	Power Dissipation @ $T_{CASE} = 25^\circ C$	300mW
$T_j$	Operating Junction Temperature Range	$-55$ to $150^\circ C$
$T_{stg}$	Storage Temperature Range	$-55$ to $150^\circ C$

\* Pulse width limited by maximum junction temperature.

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit	
<b>STATIC CHARACTERISTICS</b>						
$V_{(BR)DSS}$	Gate – Source Breakdown Voltage	$V_{GS} = 0V$	$I_D = 10\mu A$	60	70	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS} = V_{GS}$	$I_D = 0.25mA$	0.8	3.0	
$I_{GSS}$	Gate – Body Leakage Current	$V_{GS} = \pm 20V$ $V_{DS} = 0V$			-10	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS} = 60V$	$V_{GS} = 0V$		1	$\mu A$
			$T_{CASE} = 125^{\circ}C$		1	mA
$I_{D(on)*}$	On–State Drain Current	$V_{DS} \geq 2V_{DS(on)}$	$V_{GS} = 4.5V$	75		mA
$R_{DS(on)*}$	Drain – Source On Resistance	$V_{GS} = 10V$	$I_D = 0.5A$	$T_{CASE} = 125^{\circ}C$	5	$\Omega$
					9	
$V_{DS(on)*}$	Drain – Source On Voltage	$V_{GS} = 4.5V$	$I_D = 75mA$		0.4	V
			$I_D = 0.5A$		2.5	
$g_{FS*}$	Forward Transconductance	$V_{GS} = 10V$	$I_D = 0.5A$	100		ms
<b>DYNAMIC CHARACTERISTICS</b>						
$C_{iss}$	Input Capacitance	$V_{DS} = 25V$			60	pF
$C_{oss}$	Output Capacitance	$V_{GS} = 0V$			25	
$C_{rss}$	Reverse Transfer Capacitance	$f = 1MHz$			5	
<b>SWITCHING CHARACTERISTICS</b>						
$t_{ON}$	Turn–On Time	$V_{DD} = 30V$	$V_{GEN} = 10V$		10	ns
$t_{OFF}$	Turn–Off Time	$R_L = 150\Omega$	$R_G = 25\Omega$		10	
		$I_D = 0.2A$				

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

Parameter	Min.	Typ.	Max.	Unit
$R_{\theta JA}$			416	$^{\circ}C/W$