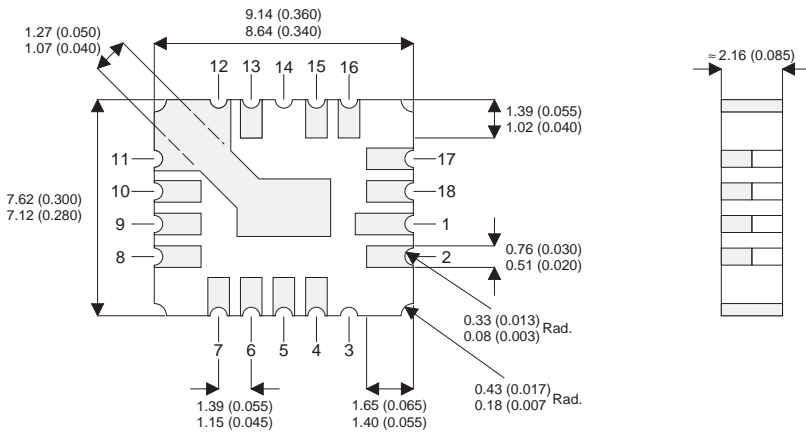


MECHANICAL DATA

Dimensions in mm (inches)



**N-CHANNEL
POWER MOSFET**

$V_{DSS} = 100V$
 $I_D = 7.4A$
 $R_{DS(ON)} = 0.18\Omega$

LCC4 CERAMIC SURFACE MOUNT PACKAGE

Underside View

- Pads 6, 7, 8, 9, 10, 11, 12, 13. **Source**
- Pads 4,5 **Gate**
- Pads 1,2,15,16,17,18 **Drain**
- Pads 3,14 **Not Connected**

FEATURES

- Hermetically sealed ceramic surface mount package
- Small footprint
- Simple drive requirements

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

V_{DS}	Drain-Source Voltage	100V
V_{DGR}	Drain-Gate Voltage ($V_{GS} = 1.0m\Omega$)	100V
V_{GS}	Gate-Source Voltage	$\pm 20V$
I_D	Drain Current Continuous	7.4A
I_{DM}	Drain Current Pulsed	30A
P_D	Total Device Dissipation @ $T_C = 25^\circ C$	22W
	Derate above $25^\circ C$	0.17°C/W
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 to +150°C

THERMAL CHARACTERISTICS

$R_{\theta JC}$	Thermal Resistance Junction to Case	5.0°CW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	175°CW
T_L	Maximum Lead Temperature 1.5mm from Case for 10 secs.	300°C

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS					
$V_{(BR)DSS}$ Drain–Source Breakdown Voltage	$V_{GS} = 0$ $I_D = 0.25mA$	100			V
I_{DSS} Zero Gate Voltage Drain Current	$V_{DS} = \text{Rated } V_{DS}$ $V_{GS} = 0$			250	μA
	$V_{DS} = 80V$ $V_{GS} = 0A$ $T_J = 125^\circ C$			1000	
I_{GSSF} Gate–Body Leakage, Forward	$V_{DS} = 0$ $V_{GS} = 20V$			100	nA
I_{GSSR} Gate–Body Leakage, Reverse	$V_{DS} = 0$ $V_{GS} = -20V$			-100	
ON CHARACTERISTICS					
$V_{GS(th)}$ Gate Threshold Voltage	$V_{DS} = V_{GS}$ $I_D = 0.5mA$	2		4	V
$R_{DS(on)}$ Static Drain–Source On–Resistance	$V_{GS} = 10V$ $I_D = 4.7A$ $T_A = 125^\circ C$			0.18	Ω
				0.35	
$V_{DS(on)}$ Drain–Source On–Voltage	$V_{GS} = 15V$ $I_D = 7.4A$			1.56	V
g_{fS} Forward Transconductance	$V_{GS} = 15V$ $I_D = 4.7A$	3		9	mhos
DYNAMIC CHARACTERISTICS					
C_{iss} Input Capacitance	$V_{DS} = 25V$ $V_{GS} = 0$ $f = 1.0MHz$	350		900	μF
C_{oss} Output capacitance		150		500	
C_{rss} Reverse Transfer Capacitance		50		150	