SENSITRON
SEMICONDUCTOR

TECHNICAL DATA
DATA SHEET 4302, REV -

HERMETIC DEPLETION MODE DMOS N-CHANNEL

FEATURES:
- **250 V, 6 Ω, 300 mA DMOS N-Channel FET**
- **Hermetically Sealed**
- **Surface Mount Package: Ceramic LCC-3**

MAXIMUM RATINGS

ALL RATINGS ARE AT T_A = 25°C UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	±20	V
SATURATED DRAIN SOURCE CURRENT V_{GS} = 0V, V_{DS} = 15V T_C = 25°C	I_{DSS}	-	-	300	mA
PULSED DRAIN CURRENT @ T_C = 25°C	I_{DM}	-	-	1000	mA
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	°C
TERMAL RESISTANCE JUNCTION TO CASE	$R_{\theta JC}$	-	-	15	°C/W
TOTAL DEVICE DISSIPATION @ T_C = 25°C	P_D	-	-	1.6	W

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = -5V, I_D = 100 μA	BV_{DSX}	250	-	-	V
DRAIN TO GATE BREAKDOWN VOLTAGE V_{GS} = -5V, I_D = 100 μA	BV_{DGX}	250	-	-	V
DRAIN TO SOURCE ON STATE RESISTANCE V_{GS} = 0V, I_D = 200 mA	$R_{DS(ON)}$	-	-	6	Ω
GATE SOURCE OFF VOLTAGE V_{DS} = 15V, I_D = 1 mA	$V_{GS(OFF)}$	-1.5	-	-3.5	V
FORWARD TRANSCONDUCTANCE V_{DS} = 10V, I_D = 150 mA	g_{fs}	225	-	-	S(1/Ω)
DRAIN SOURCE LEAKAGE CURRENT, V_{DS} = 0.8 x Max Rating, V_{GS} = -5V T_J = 25°C T_J = 125°C	$I_{D(OFF)}$	-	-	 1 1	 μA mA
GATE TO SOURCE LEAKAGE FORWARD V_{GS} = 20V GATE TO SOURCE LEAKAGE REVERSE V_{GS} = -20V	I_{GSS}	-	-	100 -100	nA
TURN ON DELAY TIME V_{DD} = 25V, RISE TIME I_D = 150 mA, TURN OFF DELAY TIME R_G = 25Ω, FALL TIME V_{GS} = 0V to - 10V	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	20 25 25 40	-	ns
DIODE FORWARD VOLTAGE T_J = 25°C,I_{SD} = 150 mA V_{GS} = -5V	V_{SD}	-	-	1.8	V
REVERSE RECOVERY TIME T_J = 25°C, V_{GS} = -5V, I_{SD} = 150mA	t_{rr}	-	800	-	ns
INPUT CAPACITANCE V_{GS} = -5V, V_{DS} = 25V, OUTPUT CAPACITANCE f = 1.0MHz REVERSE TRANSFER CAPACITANCE	C_{iss} C_{oss} C_{rss}	-	-	350 60 20	pF

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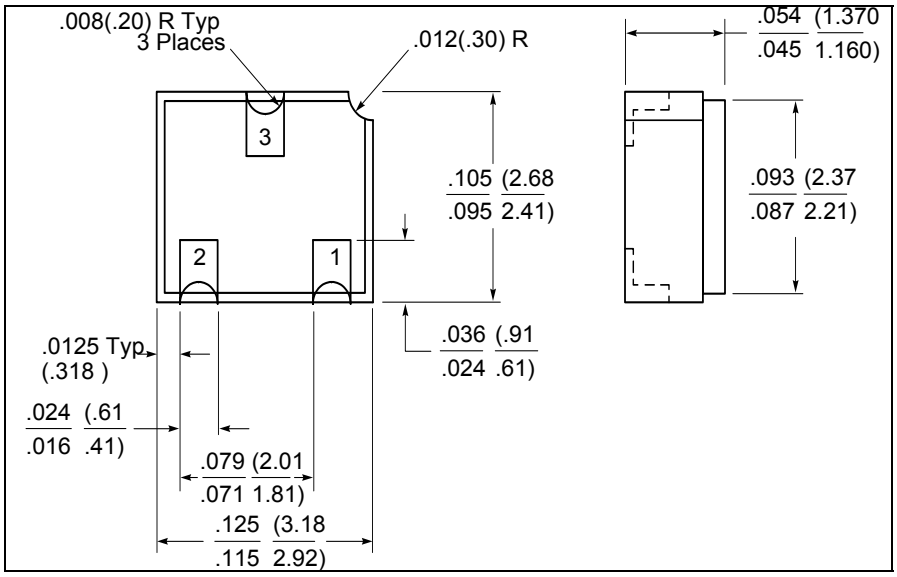
MECHANICAL DIMENSIONS - in inches / mm



LCC-3

PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
N Channel Depletion Mode FET	Gate	Source	Drain