

TECHNICAL DATA
DATA SHEET 608, REV. A

**HERMETIC POWER MOSFET
N-CHANNEL**

FEATURES:

- 400 Volt, 0.24 Ohm, 16A MOSFET
- Low $R_{DS(on)}$

MAXIMUM RATINGS

ALL RATINGS ARE AT $T_C = 25^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	± 20	Volts
ON-STATE DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_D	-	-	16	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_{DM}	-	-	64	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	$^\circ\text{C}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	P_D	-	-	290	Watts
THERMAL RESISTANCE, JUNCTION TO CASE	R_{thJC}	-	-	0.43	$^\circ\text{C}/\text{W}$

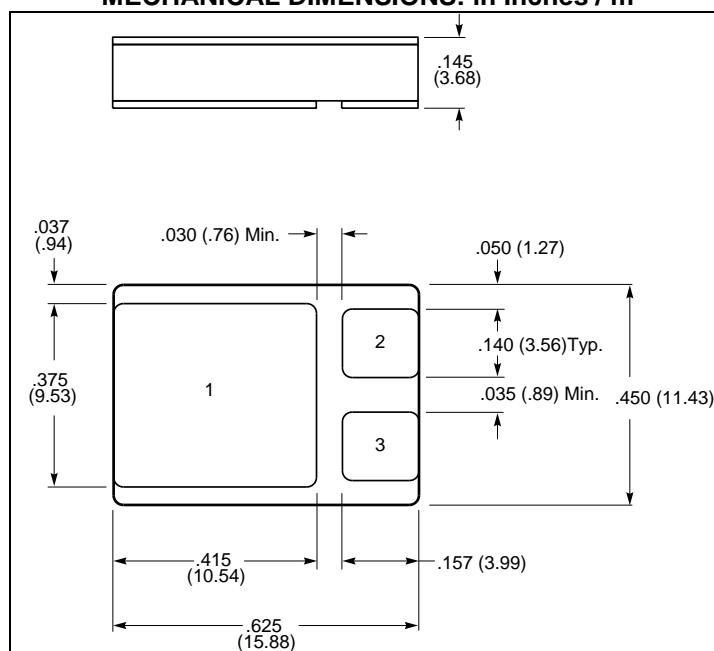
ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0\text{V}, I_D = 250\mu\text{A}$	BV_{DSS}	400	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 10\text{V}, I_D = 8.0\text{A}$	$R_{DS(ON)}$	-	-	0.24	Ω
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_{DS} = 0.25\text{mA}$	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} = 15\text{V}, I_D = 8.0\text{A}$	g_{fs}	8.0	-	-	$\text{S}(1/\Omega)$
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0\text{V}$ $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0\text{V}, T_J = 125^\circ\text{C}$	I_{DSS}	-	-	250 1000	μA
GATE TO SOURCE LEAKAGE FORWARD $V_{GS} = 20\text{V}$ GATE TO SOURCE LEAKAGE REVERSE $V_{GS} = -20\text{V}$	I_{GSS}	-	-	100 -100	nA
TURN ON DELAY TIME RISE TIME TURN OFF DELAY TIME FALL TIME $V_{DD} = 200\text{V}, I_D = 16\text{A}, R_G = 6.2\Omega, V_{GS(ON)} = 10\text{V}$	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	29 62 76 57	-	nsec
TOTAL GATE CHARGE GATE TO SOURCE CHARGE GATE TO DRAIN CHARGE $I_D = 16\text{A}, V_{GS} = 10\text{V}, V_{DS} = 0.5 \times \text{Max. Rating}$	Q_g Q_{gs} Q_{gd}	-	66 17 31	130 - -	nC
DIODE FORWARD VOLTAGE $T_C = 25^\circ\text{C}, I_S = 16\text{A}, V_{GS} = 0\text{V}$	V_{SD}	-	-	1.6	Volts
REVERSE RECOVERY TIME $T_J = 25^\circ\text{C}, I_S = 16\text{A}, di/dt \leq 100\text{A}/\mu\text{sec}$	t_{rr}	-	340	-	nsec
INPUT CAPACITANCE OUTPUT CAPACITANCE REVERSE TRANSFER CAPACITANCE $V_{GS} = 0\text{V}, V_{DS} = 25\text{V}, f = 1.0\text{MHz}$	C_{iss} C_{oss} C_{rss}	-	2570 330 82	-	pF

SENSITRON

DATA SHEET 608, REV A

MECHANICAL DIMENSIONS: in Inches / m

**SMD-1**

PINOUT TABLE

	PIN 1	PIN 2	PIN 3
N CHANNEL MOSFET IN AN LCC-3P PACKAGE	DRAIN	SOURCE	GATE

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