

TECHNICAL DATA  
DATA SHEET 4324, REV. A

## LOW R<sub>DS</sub> HERMETIC POWER MOSFET - P-CHANNEL

### FEATURES:

- 150 Volt, 0.1 Ohm, 7A MOSFET
- Isolated Hermetic Metal Package
- Ultra Low R<sub>DS(on)</sub>
- Characterized at V<sub>GS</sub> of 6V

### MAXIMUM RATINGS

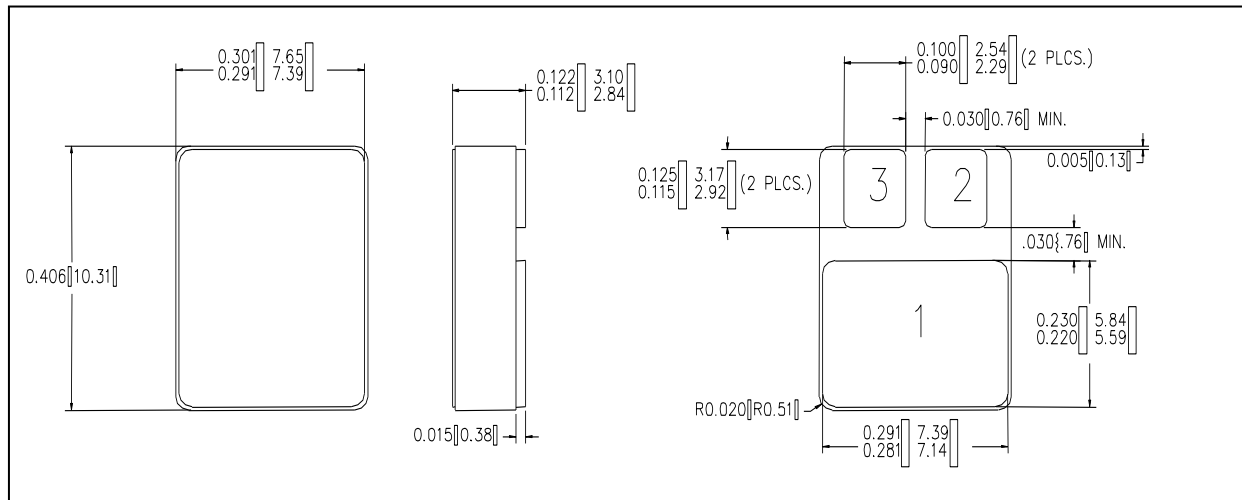
ALL RATINGS ARE AT T<sub>C</sub> = 25°C UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V <sub>GS</sub>	-	-	±20	Volts
ON-STATE DRAIN CURRENT	I <sub>D25</sub>	-	-	- 7	Amps
PULSED DRAIN CURRENT	I <sub>DM</sub>	-	-	- 50	Amps
OPERATING AND STORAGE TEMPERATURE	T <sub>J</sub> /T <sub>STG</sub>	-55	-	+150	°C
TOTAL DEVICE DISSIPATION	P <sub>D</sub>	-	-	40	Watts
THERMAL RESISTANCE, JUNCTION TO CASE	R <sub>θJC</sub>	-	-	3.1	°C/W

### ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE V <sub>GS</sub> = 0V, I <sub>D</sub> = - 250μA	BV <sub>DSS</sub>	-150	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE V <sub>GS</sub> = - 10V, I <sub>D</sub> = - 7A V <sub>GS</sub> = - 6V, I <sub>D</sub> = - 5A	-	-	0.09 0.10	0.10 0.11	Ω
GATE THRESHOLD VOLTAGE V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = - 250μA	V <sub>GS(th)</sub>	- 2	-	- 4	Volts
FORWARD TRANSCONDUCTANCE V <sub>DS</sub> = - 15V, I <sub>D</sub> = - 7A	g <sub>fs</sub>	-	19	-	S(1/Ω)
ZERO GATE VOLTAGE DRAIN CURRENT V <sub>DS</sub> = 0.8 x Max. rating, V <sub>GS</sub> = 0V, T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C	I <sub>DSS</sub>	-	-	- 1 - 50	μA
GATE TO SOURCE LEAKAGE FORWARD V <sub>GS</sub> = 20V	I <sub>GSS</sub>	-	-	100	nA
GATE TO SOURCE LEAKAGE REVERSE V <sub>GS</sub> = -20V				-100	
TURN ON DELAY TIME RISE TIME TURN OFF DELAY TIME FALL TIME V <sub>DD</sub> = - 75V I <sub>D</sub> = - 5A V <sub>GS</sub> = - 10V R <sub>G</sub> = 6Ω	t <sub>d(ON)</sub> t <sub>r</sub> t <sub>d(OFF)</sub> t <sub>f</sub>	-	25 46 115 64	40 70 180 100	nsec
DIODE FORWARD VOLTAGE Pulse test, t ≤ 300 μs, duty cycle d ≤ 2 % I <sub>F</sub> = - 5A, V <sub>GS</sub> = 0V	V <sub>SD</sub>	-	0.9	1.2	Volts
REVERSE RECOVERY TIME T <sub>J</sub> = 25°C, I <sub>F</sub> = - 3A, V <sub>R</sub> = 100V di/dt = 100A/μsec	t <sub>rr</sub>	-	100	150	nsec
TOTAL GATE CHARGE GATE SOURCE CHARGE GATE DRAIN CHARGE V <sub>DD</sub> = - 75V I <sub>D</sub> = - 5A V <sub>GS</sub> = - 10V	Q <sub>g</sub> Q <sub>gs</sub> Q <sub>gd</sub>	-	88 18 27	-	nC

## SENSITRON

**TECHNICAL DATA**  
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**MECHANICAL DIMENSIONS: in Inches / mm**

**SMD-0.5**
**PINOUT TABLE**

DEVICE TYPE	PIN 1	PIN 2	PIN 3
P Channel Mosfet	DRAIN	GATE	SOURCE

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