

TECHNICAL DATA
DATA SHEET 892, REV. A

HERMETIC POWER MOSFET N-CHANNEL

- 200 VOLT, 0.4 OHM, 9.0A MOSFET
- Fast Switching
- Low $R_{DS(on)}$
- Equivalent to IRFY230M

MAXIMUM RATINGS

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

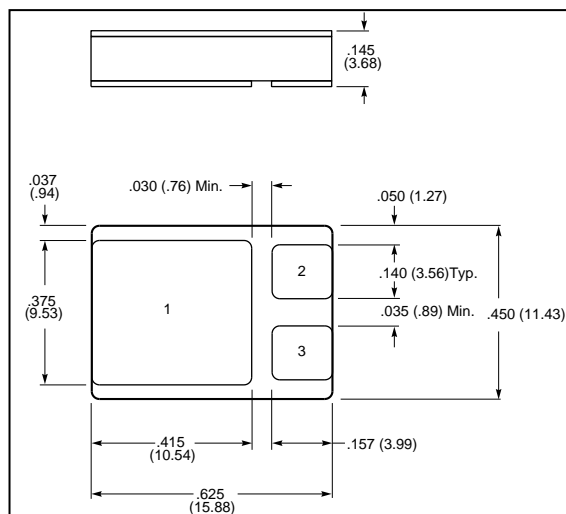
RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	± 20	Volts
CONTINUOUS DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_D	-	-	9.0	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_{DM}	-	-	36	Amps(pk)
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	$^\circ\text{C}$
TERMAL RESISTANCE JUNCTION TO CASE	$R_{\theta JC}$	-	-	1.27	$^\circ\text{C/W}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	P_D	-	-	98	Watts

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0V, I_D = 1.0mA$	BV_{DSS}	200	-	-	Volts
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_D = 250\mu A$	$V_{GS(th)}$	2.0	-	4.0	Volts
DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 10Vdc, I_D = 6.0A$ $I_D = 9.0A$	$R_{DS(ON)}$	-	-	0.4 0.49	Ω
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0Vdc$ $V_{DS} = 0.8 \times \text{Max. Rating}$ $V_{GS} = 0Vdc, T_J = 125^\circ\text{C}$	I_{DSS}	-	-	25 250	μA
GATE TO BODY LEAKAGE CURRENT $V_{GS} = \pm 20Vdc,$	I_{GSS}	-	-	± 100	nA
TOTAL GATE CHARGE GATE TO SOURCE CHARGE GATE TO DRAIN CHARGE $V_{GS} = 10Vdc$ $V_{DS} = 0.5V \text{ Max. Rating},$ $I_D = 9.0A$	Q_g Q_{gs} Q_{gd}	16 3.0 5.5	-	39 5.7 20	nC
TURN ON DELAY TIME RISE TIME TURN OFF DELAY TIME FALL TIME $V_{DD} = 100V,$ $I_D = 9.0A,$ $R_G = 7.5\Omega$ $V_{GS} = 10V$	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	-	35 80 60 40	nsec
FORWARD VOLTAGE $T_J = 125^\circ\text{C}, I_S = 9.0A, V_{GS} = 0V$	V_{SD}	-	-	1.4	Volts
REVERSE RECOVERY TIME REVERSE RECOVERY CHARGE $I_S = 9.0A,$ $di/dt \leq 100A/\mu\text{sec},$ $V_{DD} \leq 50V$	t_{rr}	-	-	500	nsec
INPUT CAPACITANCE OUTPUT CAPACITANCE REVERSE TRANSFER CAPACITANCE $V_{DS} = 25Vdc,$ $V_{GS} = 0Vdc,$ $f = 1\text{ MHz}$	C_{iss} C_{oss} C_{rss}	-	600 250 80	-	pF

SENSITRON

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MECHANICAL DIMENSIONS: in Inches / mm**SMD-1****PINOUT TABLE**

DEVICE TYPE	PIN 1	PIN 2	PIN 3
N CHANNEL MOSFET IN A SMD-1 PACKAGE	DRAIN	SOURCE	GATE

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