

TECHNICAL DATA
DATA SHEET 893, REV. A.1

**HERMETIC POWER MOSFET
N-CHANNEL**

FEATURES:

- 200 Volt, 0.21 Ohm, 14A MOSFET
- Ceramic Hermetic Package
- Fast Switching
- Low $R_{DS(on)}$
- Electrically Equivalent to IRFY240

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 $V_{DS} \geq 2V_{DS(on)}, V_{GS} = 10V$	$I_{D(on)}$	-	-	14	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_{DM}	-	-	± 56	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	$^\circ\text{C}$
THERMAL RESISTANCE, JUNCTION TO CASE	$R_{\theta JC}$	-	-	0.72	$^\circ\text{C/W}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	P_D	-	-	175	Watts

ELECTRICAL CHARACTERISTICS

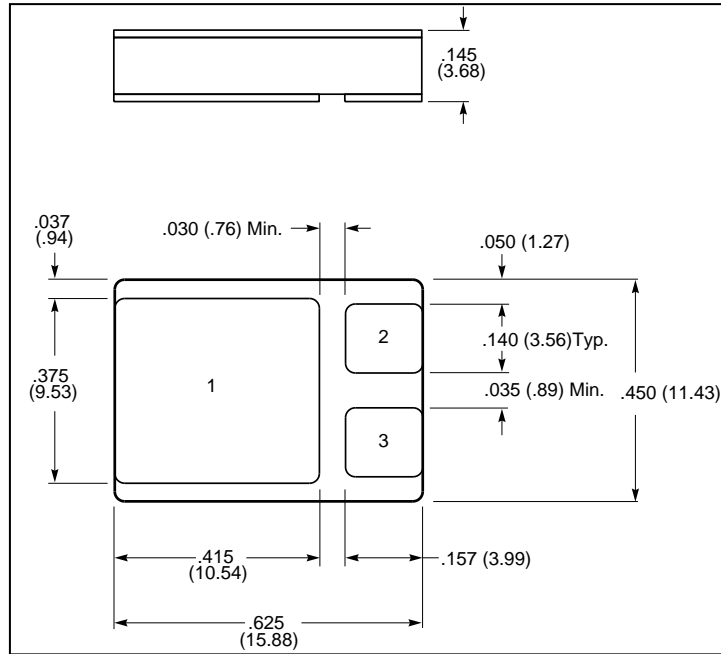
DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0V, I_D = 250 \mu\text{A}$	BV_{DSS}	200	-	-	Volts
DRAIN TO SOURCE ON-STATE VOLTAGE $V_{GS} = 10V, I_D = 10A$	$V_{DS(ON)}$	-	1.8	2.1	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 10V, I_D = 10A$ $V_{GS} = 10V, I_D = 10A, T_C = 125^\circ\text{C}$	$R_{DS(ON)}$	-	-	0.21 0.40	Ω
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_D = 250 \mu\text{A}$	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} \geq 2V_{DS(on)}, I_D = 10A$	g_{fs}	6.0	-	-	S(1/ Ω)
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0V$ $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0V, T_C = 125^\circ\text{C}$	I_{DSS}	-	0.1 0.2	0.25 1.0	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 RISE TIME TURN OFF DELAY TIME FALL TIME $V_{DD} = 100V,$ $I_D = 14A,$ $R_G = 5.0\Omega,$ $V_{GS} = 10V$	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	17 52 36 30	-	nsec
DIODE FORWARD VOLTAGE $T_C = 25^\circ\text{C}, I_S = 14A,$ $V_{GS} = 0V$	V_{SD}	-	-	1.5	Volts
REVERSE RECOVERY TIME $I_f = I_S,$ $di_F/ds = 100A/\mu\text{sec},$	t_{rr}	-	500	-	nsec
INPUT CAPACITANCE $V_{GS} = 0V$ OUTPUT CAPACITANCE $V_{DS} = 25V$ REVERSE TRANSFER CAPACITANCE $f = 1.0\text{MHz}$	C_{iss} C_{oss} C_{rss}	-	1300 400 130	-	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 LCC-3P PACKAGE	DRAIN	SOURCE	GATE

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