TECHNICAL DATA
DATA SHEET 336, REV. A

HERMETIC POWER MOSFET N-CHANNEL

FEATURES:

- **500 Volt, 1.6 Ohm MOSFET**
- **Isolated and Hermetically Sealed**
- **Equivalent to IRFY430M**

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	Volts
CONTINUOUS DRAIN CURRENT V_{GS}=10V, T_C = 25°C V_{GS}=10V, T_C = 100°C	I_D	-	-	3.7 2.4	Amps
PULSED DRAIN CURRENT @ T_C = 25°C	I_{DM}	-	-	14	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	°C
TERMAL RESISTANCE JUNCTION TO CASE	$R_{\theta JC}$	-	-	1.45	°C/W
TOTAL DEVICE DISSIPATION @ T_C = 25°C	P_D	-	-	80	Watts

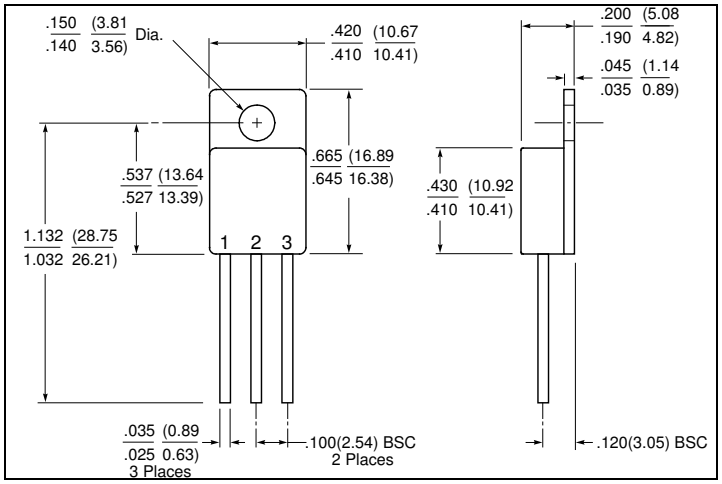
ELECTRICAL CHARACTERISTICS

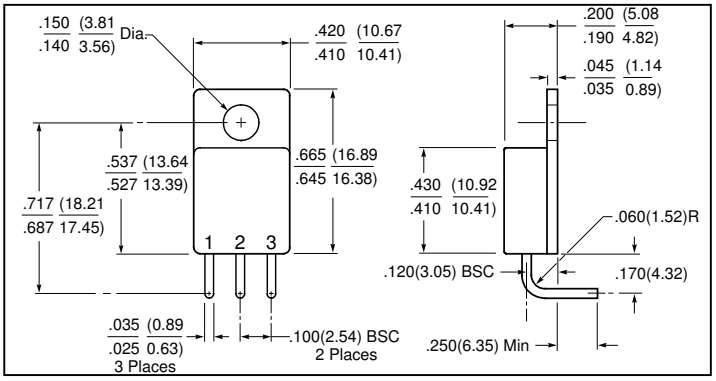
DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = 0V, I_D = 1.0mA	BV_{DSS}	500	-	-	Volts
DRAIN TO SOURCE ON STATE RESISTANCE V_{GS} = 10V, I_D = 2.4A	$R_{DS(ON)}$	-	-	1.6	Ω
GATE THRESHOLD VOLTAGE V_{DS} = V_{GS}, I_D = 250µA	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE V_{DS} ≥ 15V, I_D = 2.4A	g_{fs}	1.5	-	-	S(1/Ω)
ZERO GATE VOLTAGE DRAIN CURRENT, T_J = 25°C (V_{DS} = 0.8xMax. Rating, V_{GS} = 0V), T_J = 125°C	I_{DSS}	-	-	25 250	µA
GATE TO SOURCE LEAKAGE FORWARD V_{GS} = 20V GATE TO SOURCE LEAKAGE REVERSE V_{GS} = -20V	I_{GSS}	-	-	100 -100	nA
TOTAL GATE CHARGE V_{GS} = 10 V, GATE TO SOURCE CHARGE V_{DS} = 0.5 x. V_{DS} Max., GATE TO DRAIN CHARGE I_D =3.7A	Q_g Q_{gs} Q_{gd}	19.8 2.2 5.5	-	29.5 4.6 19.7	nC
TURN ON DELAY TIME V_{DD} = 250V, RISE TIME I_D = 3.7A, TURN OFF DELAY TIME R_G = 7.5Ω, FALL TIME V_{GS} = 10V	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	-	35 30 55 30	nsec
DIODE FORWARD VOLTAGE T_J = 25°C, I_S = 3.7A, V_{GS} = 0V	V_{SD}	-	-	1.4	Volts
REVERSE RECOVERY TIME T_J = 25°C, I_s = 3.7A, di/dt ≤ = 100A/µsec, REVERSE RECOVERY CHARGE V_{DD} ≤ 50V	t_{rr} Q_{rr}	-	-	900 7.0	nsec µC
INPUT CAPACITANCE V_{GS} = 0V, V_{DS} = 25V OUTPUT CAPACITANCE f=1MHz REVERSE TRANSFER CAPACITANCE	C_{iss} C_{oss} C_{rss}	-	610 135 65	-	pF

SENSITRON
DATA SHEET 336
REVISION A

MECHANICAL DIMENSIONS: in Inches / mm

TO-257





Lead Form Option B

PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
MOSFET TO-257 PACKAGE	DRAIN	SOURCE	GATE

TECHNICAL DATA

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