TECHNICAL DATA
DATA SHEET 619, REV -

HERMETIC POWER MOSFET
P-CHANNEL

FEATURES:

- **100 Volt, 0.31 Ohm, -9.3 A MOSFET**
- **Fast Switching**
- **Low $R_{DS\ (on)}$**
- **Equivalent to IRFY9130 Series**
- **Add a "C" to the part number for ceramic seals, SHDC226309**

MAXIMUM RATINGS

ALL RATINGS ARE AT T_C = 25°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°C	$I_{D\ (on)}$	-	-	-9.3	Amps
PULSED DRAIN CURRENT @ T_C = 25°C	I_{DM}	-	-	5.8	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	°C
THERMAL RESISTANCE, JUNCTION TO CASE	R_{thJC}	-	-	1.4	°C/W
TOTAL DEVICE DISSIPATION @ T_C = 25°C	P_D	-	-	89	Watts

ELECTRICAL CHARACTERISTICS

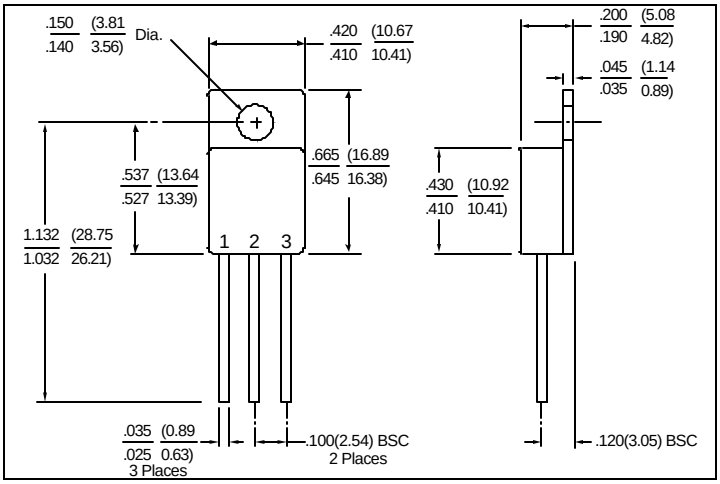
DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = 0V, I_D = 1.0 mA	BV_{DSS}	-100	-	-	Volts
GATE TO SOURCE ON-STATE VOLTAGE V_{GS} = -10V, I_D = -9.3A, V_{DS} = 0.5 x V_{DS} Max.	Q_{gs}	1.0	-	7.1	nC
GATE DRAIN CHARGE V_{GS} = -10V, I_D = -9.3A, V_{DS} = V_{DS} Max. x 0.8	Q_{gd}	2.1	-	21	nC
STATIC DRAIN TO SOURCE ON STATE RESISTANCE V_{GS} = -10V, I_D = -5.8A V_{GS} = -10V, I_D = -9.3A	$R_{DS(ON)}$	-	-	 0.31 0.36	Ω
GATE THRESHOLD VOLTAGE V_{DS} = V_{GS}, I_D = -250µA	$V_{GS(th)}$	-2.0	-	-4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} \geq 15V_{DS(on)}$, I_D = -5.8A	g_{fs}	2.5	-	-	S(1/Ω)
ZERO GATE VOLTAGE DRAIN CURRENT V_{DS} = 0.8x Max. Rating, V_{GS} = 0V V_{DS} = 0.8x Max. 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
TURN ON DELAY TIME V_{DD} = -50V, RISE TIME I_D = -9.3A, TURN OFF DELAY TIME R_G = 7.5Ω, FALL TIME V_{GS} = -10V	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	-	60 140 140 140	nsec
DIODE FORWARD VOLTAGE T_C = 25°C, I_S = -9.3A, V_{GS} = 0V	V_{SD}	-	-	-4.7	Volts
REVERSE RECOVERY TIME T_J = 25°C, I_S = -9.3 A, di/dt = -100A/µsec, $V_{DD} \leq$ -50 V	t_{rr}	-	-	 250	nsec
INPUT CAPACITANCE V_{GS} = 0 V, OUTPUT CAPACITANCE V_{DS} = 25 V, REVERSE TRANSFER CAPACITANCE f = 1.0MHz	C_{iss} C_{oss} C_{rss}	-	800 350 125	-	pF

SENSITRON

DATA SHEET 619

REVISION -

MECHANICAL DIMENSIONS: in Inches / mm



TO-257

PINOUT TABLE

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

TECHNICAL DATA

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