

TECHNICAL DATA  
DATA SHEET 222, REV. B  
Formerly Part Number SHD22632

## HERMETIC POWER MOSFET N-CHANNEL

**FEATURES:**

- 100 Volt, .19 Ohm, 11A MOSFET
- Isolated Hermetic Metal Package
- Fast Switching
- Low  $R_{DS(on)}$
- Equivalent to IRFY130M

**MAXIMUM RATINGS**

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

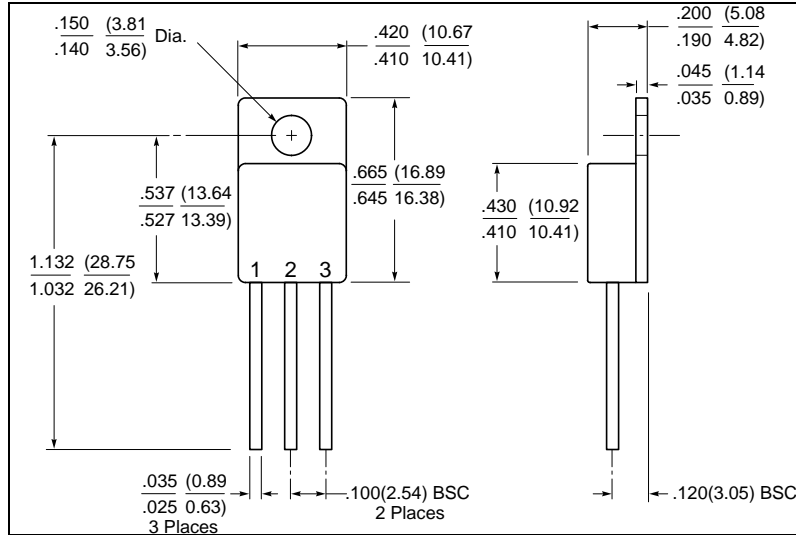
RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	$V_{GS}$	-	-	$\pm 20$	Volts
ON-STATE DRAIN CURRENT	$I_D$	-	-	11	Amps
PULSED DRAIN CURRENT	$I_{DM}$	-	-	44	Amps
OPERATING AND STORAGE TEMPERATURE	$T_J/T_{STG}$	-55	-	+150	$^\circ\text{C}$
TOTAL DEVICE DISSIPATION	$P_D$	-	-	45	Watts

**ELECTRICAL CHARACTERISTICS**

DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0V, I_D = 1.0\text{ mA}$	$BV_{DSS}$	100	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 10V, I_D = 7.0A$	$R_{DS(ON)}$	-	-	.19	$\Omega$
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_D = 250\mu A$	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} \geq 15V, I_D = 7.0A$	$g_{fs}$	3.0	-	-	S(1/ $\Omega$ )
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = 0.8 \times \text{Max. rating}, V_{GS} = 0V$ $T_J = 25^\circ\text{C}$	$I_{DSS}$	-	-	25 250	$\mu A$
GATE TO SOURCE LEAKAGE FORWARD 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 $V_{DD} = 50V,$ $I_D = 11A$ $R_G = 7.5\Omega$	$t_{d(ON)}$ $t_r$ $t_{d(OFF)}$ $t_f$	-	-	30 75 40 45	nsec
DIODE FORWARD VOLTAGE Pulse test, $t \leq 300\ \mu s$ , duty cycle $d \leq 2\%$ $I_S = 14A, V_{GS} = 0V$	$V_{SD}$	-	1.0	1.5	Volts
REVERSE RECOVERY TIME $T_J = 25^\circ\text{C},$ $V_{DD} \leq 50V$ $di/dt = 100A/\mu\text{sec}$	$t_{rr}$	-	-	300	nsec
INPUT CAPACITANCE OUTPUT CAPACITANCE REVERSE TRANSFER CAPACITANCE $V_{GS} = 0V$ $V_{DS} = 25V$ $f = 1.0\text{MHz}$	$C_{iss}$ $C_{oss}$ $C_{rss}$	-	650 240 44	-	pF
THERMAL RESISTANCE, JUNCTION TO CASE	$R_{thJC}$	-	-	2.8	$^\circ\text{C/W}$

**SENSITRON**  
**DATA SHEET 222 REV. B**  
**REVISION -**

**MECHANICAL DIMENSIONS: in Inches / mm**



**TO-257**

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

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