

TECHNICAL DATA  
DATA SHEET 213, REV. B  
Formerly Part Number SHD2264

## HERMETIC POWER MOSFET N-CHANNEL

### FEATURES:

- 400 Volt, 0.55 Ohm, 6.9 A MOSFET
- Low  $R_{DS(on)}$
- Equivalent to IRFY340 Series
- Add a C after SHD for ceramic eyelets

### 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 @ $T_c = 25^\circ\text{C}$	$I_{D(on)}$	-	-	6.9	Amps
PULSED DRAIN CURRENT @ $T_c = 25^\circ\text{C}$	$I_{DM}$	-	-	27	Amps
OPERATING AND STORAGE TEMPERATURE	$T_{OP}/T_{STG}$	-55	-	+150	$^\circ\text{C}$
TOTAL DEVICE DISSIPATION @ $T_c = 25^\circ\text{C}$	$P_D$	-	-	60	Watts

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0V, I_D = 1.0\text{ mA}$	$BV_{DSS}$	400	-	-	Volts
GATE TO SOURCE ON-STATE VOLTAGE $V_{GS} = 10V, I_D = 6.9A, V_{DS} = 0.5 \times V_{DS} \text{ Max.}$	$Q_{gs}$	2.2	-	10	nC
GATE DRAIN CHARGE $V_{GS} = 10V, I_D = 6.9A, V_{DS} = 0.5 \times V_{DS} \text{ Max.}$	$Q_{gd}$	13.8	-	40.5	nC
STATIC DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 10V, I_D = 4.4A$ $V_{GS} = 10V, I_D = 6.9A$	$R_{DS(ON)}$	-	-	0.55 0.63	$\Omega$
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_D = 250\mu A$	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} \geq 15V_{DS(on)}, I_D = 4.4A$	$g_{fs}$	-	7.7	-	S(1/ $\Omega$ )
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0V$ $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0V, T_J = 125^\circ\text{C}$	$I_{DSS}$	-	-	25 250	$\mu A$
GATE TO SOURCE LEAKAGE FORWARD $V_{GS} = 20V$	$I_{GSS}$	-	-	100	nA
GATE TO SOURCE LEAKAGE REVERSE $V_{GS} = -20V$				-100	
TURN ON DELAY TIME RISE TIME TURN OFF DELAY TIME FALL TIME $V_{DD} = 200V,$ $I_D = 6.9A,$ $R_G = 9.1\Omega,$ $V_{GS} = 10V$	$t_{d(ON)}$ $t_r$ $t_{d(OFF)}$ $t_f$	-	-	25 92 79 58	nsec
DIODE FORWARD VOLTAGE $T_c = 25^\circ\text{C}, I_S = 6.9A,$ $V_{GS} = 0V$	$V_{SD}$	-	-	1.5	Volts
REVERSE RECOVERY TIME $T_J = 25^\circ\text{C},$ $I_S = 6.9\text{ A}, di/dt = 100A/\mu\text{sec},$ $V_{DD} \leq 50\text{ V}$	$t_{rr}$	-	-	660	nsec
INPUT CAPACITANCE OUTPUT CAPACITANCE REVERSE TRANSFER CAPACITANCE $V_{GS} = 0\text{ V},$ $V_{DS} = 25\text{ V},$ $f = 1.0\text{MHz}$	$C_{iss}$ $C_{oss}$ $C_{rss}$	-	1400 350 230	-	pF
THERMAL RESISTANCE, JUNCTION TO CASE	$R_{thJC}$	-	-	2.1	$^\circ\text{C/W}$

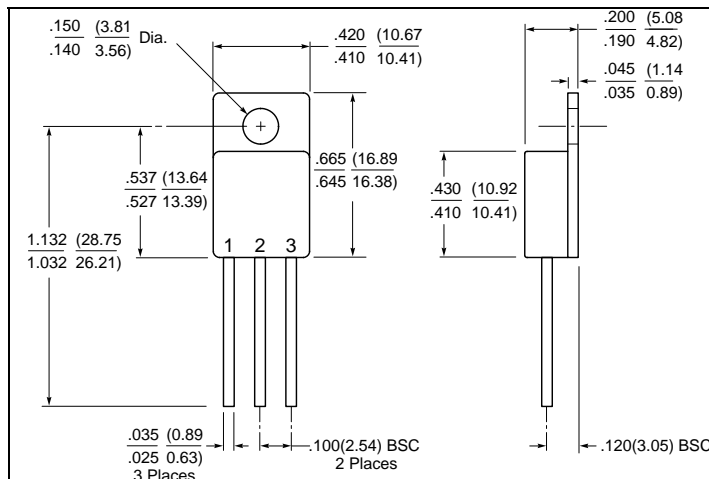
## SENSITRON

## DATA SHEET 213

## REVISION B

Formerly Part Number SHD2264

## MECHANICAL DIMENSIONS: in Inches / mm

TO-257

## PINOUT TABLE

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

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