TECHNICAL DATA
DATA SHEET 275, REV –
Formerly part number SHD2256

HERMETIC POWER MOSFET
N-CHANNEL

FEATURES:

- **800 Volt, 0.80 Ohm, 13A MOSFET**
- **Isolated Hermetic Metal Package**
- **Fast Switching**
- **Low $R_{DS\ (on)}$**
- **Similar to Industry Part Type - IXTM13N80**

MAXIMUM RATINGS

ALL RATINGS ARE AT T_C = 25°C UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE (continuous)	V_{GS}	-	-	±20	Volts
ON-STATE DRAIN CURRENT	I_D	-	-	13	Amps
PULSED DRAIN CURRENT @ T_C = 25°C	I_{DM}	-	-	52	Amps
OPERATING AND STORAGE TEMPERATURE	T_J/T_{STG}	-55	-	+150	°C
TOTAL DEVICE DISSIPATION @ T_C = 25°C	P_D	-	-	180	Watts

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = 0V, I_D = 3.0 mA	BV_{DSS}	800	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE V_{GS} = 10V, I_D = 0.5•I_{D25}	$R_{DS(ON)}$	-	-	0.80	Ω
GATE THRESHOLD VOLTAGE V_{DS} = V_{GS}, I_D = 250μA	$V_{GS(th)}$	2.0	-	4.5	Volts
FORWARD TRANSCONDUCTANCE V_{DS} = 10V; I_D = 0.5•I_{D25}	g_{fs}	8.0	14	-	S(1/Ω)
ZERO GATE VOLTAGE DRAIN CURRENT V_{GS} = 0V, V_{DS} = 0.8• V_{DSS} T_J = 125°C	I_{DSS}	-	-	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 V_{DS} = 0.5•V_{DSS}, RISE TIME I_D = 0.5 I_{D25}, TURN OFF DELAY TIME R_G = 2.0Ω, FALL TIME V_{GS} = 10V	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	20 33 63 32	50 50 100 50	nsec
DIODE FORWARD VOLTAGE I_F = I_S, V_{GS} = 0V Pulse test, t ≤ 300 μs, duty cycle d ≤ 2 %	V_{SD}	-	-	1.5	Volts
REVERSE RECOVERY TIME I_f = I_S, di/dt = 100A/μsec, V_R = 100V	t_{rr}	-	800	-	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}	-	4500 310 65	-	pF
THERMAL RESISTANCE, JUNCTION TO CASE	R_{thJC}	-	-	0.7	°C/W

SENSITRON

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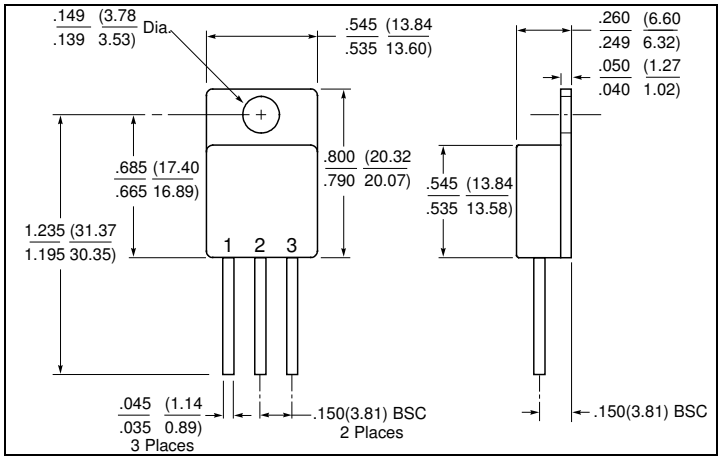
MECHANICAL DIMENSIONS: in Inches / mm



TO-254

PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
MOSFET TO-254 PACKAGE	DRAIN	SOURCE	GATE

TECHNICAL DATA

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