TECHNICAL DATA
DATA SHEET 472, REV -

HERMETIC POWER MOSFET
N-CHANNEL

DESCRIPTION: 1000 VOLT, 3.5 OHM MOSFET IN A HERMETIC TO-257 PACKAGE.

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 @ T_C = 25°C	I_D	-	-	3.9	Amps
PULSED DRAIN CURRENT @ T_C = 25°C	I_{DM}	-	-	16	Amps(pk)
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	°C
TERMAL RESISTANCE JUNCTION TO CASE	$R_{\theta JC}$	-	-	1.2	°C/W
TOTAL DEVICE DISSIPATION @ T_C = 25°C	P_D	-	-	100	Watts

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = 0V, I_D = 1.0mA	BV_{DSS}	1000	-	-	Volts
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}$, I_D = 250µA	$V_{GS(TH)}$	2.0	-	4.0	
DRAIN TO SOURCE ON STATE RESISTANCE V_{GS} = 10Vdc, I_D = 2.5A PULSE TEST, t ≤ 300 µs, DUTY CYCLE d ≤ 2%	$R_{DS(ON)}$	-	-	3.5	Ω
ZERO GATE VOLTAGE DRAIN CURRENT V_{DS} = 0.8xMax. Rating, V_{GS} = 0Vdc V_{DS} = 0.8 Max. Rating V_{GS} = 0Vdc, T_J = 125°C	I_{DSS}	-	-	 25 250	µA
GATE TO BODY LEAKAGE CURRENT V_{GS} = ±20Vdc	I_{GSS}	-	-	±100	nA
TOTAL GATE CHARGE V_{GS} = 10 Vdc, GATE TO SOURCE CHARGE V_{DS} = 400V, GATE TO DRAIN CHARGE I_D = 3.9A	Q_g Q_{gs} Q_{gd}	51 5.4 29	-	120 12 75	nC
TURN ON DELAY TIME V_{GS} = 15 Vdc RISE TIME V_{DD} = 400, TURN OFF DELAY TIME I_D = 3.9A, FALL TIME R_G = 9.1Ω	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	-	30 50 170 50	nsec
FORWARD VOLTAGE T_J = 25°C, I_S = 3.9A, V_{GS} = 0V PULSE TEST, t ≤ 300 µs, DUTY CYCLE d ≤ 2%	V_{SD}	-	-	1.8	Volts
REVERSE RECOVERY TIME T_J = 25°C, I_S = 3.9A	t_{rr}	-	-	1000	nsec
REVERSE RECOVERY CHARGE di/dt = 100A/µsec V_{DD} ≤ 50V	Q_{rr}	-	-	5.6	µC
INPUT CAPACITANCE V_{DS} = 25 Vdc, OUTPUT CAPACITANCE V_{GS} = 0 Vdc, REVERSE TRANSFER CAPACITANCE f = 1 MHz	C_{iss} C_{oss} C_{rss}	-	1700 250 100	-	pF

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SENSITRON

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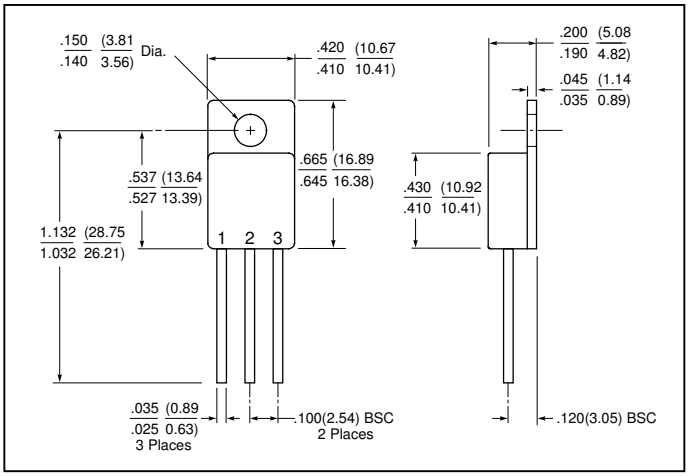
MECHANICAL DIMENSIONS: in Inches / mm



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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