TECHNICAL DATA
DATA SHEET 909, REV. -

HERMETIC POWER MOSFET
N-CHANNEL

FEATURES:

- **100 Volt, 75A, 0.02 Ohm, MOSFET**
- **Isolated Hermetic Metal Package**
- **Fast intrinsic Rectifier**
- **Low $R_{DS\ (on)}$**
- **Low package inductance-easy to drive and protect**
- **Similar Part Type - IXTM75N10**

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	$I_{D\ (on)}$	-	-	75	Amps
PULSED DRAIN CURRENT @ T_C = 25°C	I_{DM}	-	-	±300	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	°C
THERMAL RESISTANCE, JUNCTION TO CASE	R_{thJC}	-	-	0.32	°C/W
TOTAL DEVICE DISSIPATION @ T_C = 25°C	P_D	-	-	390	Watts

ELECTRICAL CHARACTERISTICS

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = 0V, I_D = 250 μA	BV_{DSS}	100	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE V_{GS} = 10V, I_D = 37.5A	$R_{DS(ON)}$	-	-	0.025	Ω
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}$, I_D = 250μA	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE V_{DS} = 10V, I_D = 37.5A	g_{fs}	25	30	-	S(1/Ω)
ZERO GATE VOLTAGE DRAIN CURRENT V_{DS} = 0.8xMax. Rating, V_{GS} = 0V V_{DS} = 0.8xMax. Rating, V_{GS} = 0V, T_J = 125°C	I_{DSS}	-	- -	200 1.0	μA 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} = 0.5V, RISE TIME I_D = 37.5A, TURN OFF DELAY TIME R_G = 2.0Ω, FALL TIME V_{GS} = 10V	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	40 60 100 30	60 110 140 60	nsec
DIODE FORWARD VOLTAGE T_C = 25°C, I_S = 75A, V_{GS} = 0V	V_{SD}	-	-	1.75	Volts
REVERSE RECOVERY TIME T_J = 25°C I_F = 75A, -di/dt = 100A/μsec, V_R = 100V	t_{rr}	-	300	-	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 1300 550	-	pF

SENSITRON

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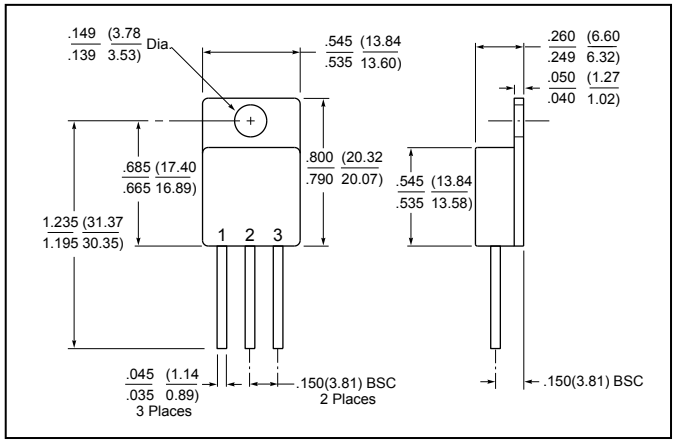
MECHANICAL DIMENSIONS: in Inches / mm



TO-254

PINOUT TABLE

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