

TECHNICAL DATA
DATA SHEET 473, REV. -**HERMETIC POWER MOSFET
N-CHANNEL****FEATURES:**

- 100 Volt, 75A, 0.025 Ohm, MOSFET
- Isolated Hermetic Metal Package
- Fast intrinsic Rectifier
- Low $R_{DS(on)}$
- Low package inductance-easy to drive and protect
- Similar Part Type - IXTD75N10

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

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	± 20	Volts
ON-STATE DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	$I_{D(on)}$	-	-	75	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_{DM}	-	-	± 300	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	$^\circ\text{C}$
THERMAL RESISTANCE, JUNCTION TO CASE	R_{thJC}	-	-	0.32	$^\circ\text{C/W}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	P_D	-	-	390	Watts

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0V, I_D = 250 \mu A$	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 $V_{DS} = V_{GS}, I_D = 4mA$	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} \geq 10V, I_D = 75A$	g_{fs}	25	30	-	$S(1/\Omega)$
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0V$ $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0V, T_C = 125^\circ\text{C}$	I_{DSS}	-	-	250 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 RISE TIME TURN OFF DELAY TIME FALL TIME $V_{DS} = 0.5V, I_D = 37.5A, R_G = 2.0\Omega, V_{GS} = 10V$	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	20 60 80 60	30 110 110 90	nsec
DIODE FORWARD VOLTAGE $T_C = 25^\circ\text{C}, I_S = 75A, V_{GS} = 0V$	V_{SD}	-	-	1.75	Volts
REVERSE RECOVERY TIME $I_f = 25A, di/dt = 100A/\mu\text{sec}, V_r = 25V$	t_{rr}	-	-	200	nsec
INPUT CAPACITANCE OUTPUT CAPACITANCE REVERSE TRANSFER CAPACITANCE $V_{GS} = 0V, V_{DS} = 25V, f = 1.0MHz$	C_{iss} C_{oss} C_{rss}	-	4500 1600 800	-	pF

Technical drawing of a mechanical part with dimensions in inches and millimeters. The drawing includes a top view and a side view.

Top View Dimensions:

- Overall width: $\frac{.149}{.139}$ (3.78 / 3.53)
- Overall height: $\frac{.685}{.665}$ (17.40 / 16.89)
- Distance from top edge to center of hole: $\frac{.545}{.535}$ (13.84 / 13.60)
- Distance from left edge to center of hole: $\frac{.800}{.790}$ (20.32 / 20.07)
- Distance from center of hole to right edge: $\frac{.260}{.249}$ (6.60 / 6.32)
- Distance from center of hole to bottom edge: $\frac{.050}{.040}$ (1.27 / 1.02)
- Distance from left edge to first vertical feature: $\frac{1.235}{1.195}$ (31.37 / 30.35)
- Distance between vertical features: $\frac{.045}{.035}$ (1.14 / 0.89) 3 Places
- Distance from last vertical feature to right edge: $\frac{.150}{.150}$ (3.81 / 3.81) BSC 2 Places

Side View Dimensions:

- Overall height: $\frac{.545}{.535}$ (13.84 / 13.58)
- Distance from top edge to bottom edge: $\frac{.260}{.249}$ (6.60 / 6.32)
- Distance from bottom edge to top edge: $\frac{.050}{.040}$ (1.27 / 1.02)
- Distance from center of hole to right edge: $\frac{.150}{.150}$ (3.81 / 3.81) BSC 2 Places

PINOUT TABLE

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

TECHNICAL DATA

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