TECHNICAL DATA
DATA SHEET 338, REV C

HERMETIC POWER MOSFET
P-CHANNEL

FEATURES:

- **55 Volt, 0.024, Ohm MOSFET**
- **Isolated and Hermetically Sealed**
- **Surface Mount 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 V_{GS} = -10V, T_C = 25°C V_{GS} = -10V, T_C = 100°C	I_D	-	-	-74 -52	Amps
PULSED DRAIN CURRENT @ T_C = 25°C	I_{DM}	-	-	-260	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+175	°C
TERMAL RESISTANCE JUNCTION TO CASE	$R_{\theta JC}$	-	-	0.75	°C/W
TOTAL DEVICE DISSIPATION @ T_C = 25°C	P_D	-	-	200	Watts

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = 0V, I_D = -1.0mA	BV_{DSS}	-50	-	-	Volts
DRAIN TO SOURCE ON STATE RESISTANCE V_{GS} = 10V, I_D = -38A V_{GS} = 10V, I_D = -38A, T_C = 125°C	$R_{DS(ON)}$	-	-	 0.024 0.042	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 = -38A	g_{fs}	21	-	-	S(1/Ω)
ZERO GATE VOLTAGE DRAIN CURRENT, T_J = 25°C (V_{DS} = -44V, V_{GS} = 0V), T_J = 125°C	I_{DSS}	-	-	25 250	µA
GATE TO SOURCE LEAKAGE FORWARD V_{GS} = 20V GATE TO SOURCE LEAKAGE REVERSE V_{GS} = -20V	I_{GSS}	-	-	100 -100	nA
TOTAL GATE CHARGE V_{GS} = -10V, GATE TO SOURCE CHARGE V_{DS} = -44V, GATE TO DRAIN CHARGE I_D = 5.5A	Q_g Q_{gs} Q_{gd}	-	-	180 32 86	nC
TURN ON DELAY TIME V_{DD} = -28V, RISE TIME I_D = -38A, TURN OFF DELAY TIME R_G = 2.5Ω, FALL TIME V_{GS} ≥ 10V	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	18 99 61 96	-	nsec
DIODE FORWARD VOLTAGE T_J = 25°C,I_S = -38V V_{GS} = 0V	V_{SD}	-	-	1.4	Volts
REVERSE RECOVERY TIME T_J = 25°C, I_S = -10A, di/dt ≤ = -100A/µsec, REVERSE RECOVERY CHARGE V_{DD} ≤ 30V	t_{rr} Q_{rr}	- -	130 350	- -	nsec µC
INPUT CAPACITANCE V_{GS} = 0V, V_{DS} = 25V, OUTPUT CAPACITANCE f = 1.0MHz REVERSE TRANSFER CAPACITANCE	C_{iss} C_{oss} C_{rss}	-	3400 1400 640	-	pF

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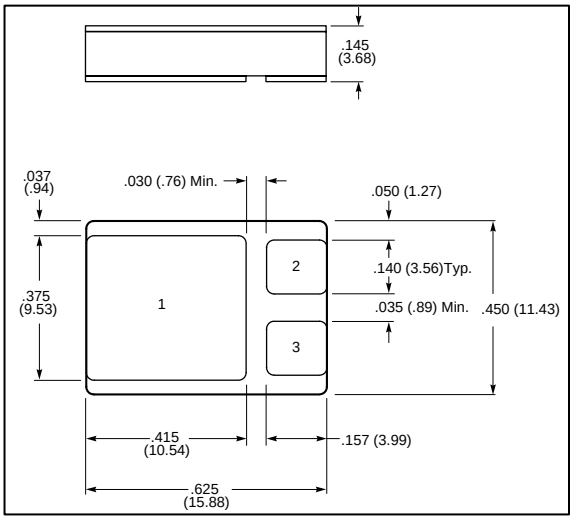
MECHANICAL DIMENSIONS: in Inches / mm

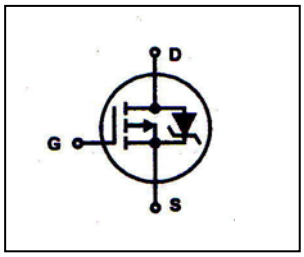


LCC-3P

PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
P-CHANNEL MOSFET LCC-3P PACKAGE	DRAIN	SOURCE	GATE

SCHEMATIC



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