

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

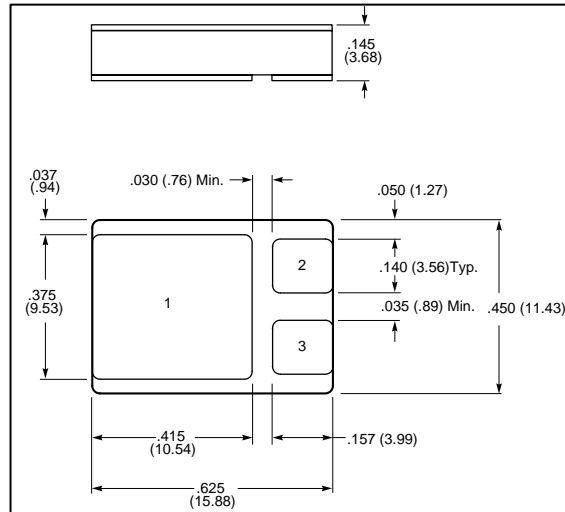
ALL RATINGS ARE AT $T_A = 25^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	± 20	Volts
CONTINUOUS DRAIN CURRENT $V_{GS} = -10\text{V}$, $T_C = 25^\circ\text{C}$ $V_{GS} = -10\text{V}$, $T_C = 100^\circ\text{C}$	I_D	-	-	-74 -52	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_{DM}	-	-	-260	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+175	$^\circ\text{C}$
TERMAL RESISTANCE JUNCTION TO CASE	$R_{\theta JC}$	-	-	0.75	$^\circ\text{C}/\text{W}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	P_D	-	-	200	Watts

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0\text{V}$, $I_D = -1.0\text{mA}$	BV_{DSS}	-50	-	-	Volts
DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 10\text{V}$, $I_D = -38\text{A}$ $V_{GS} = 10\text{V}$, $I_D = -38\text{A}$, $T_C = 125^\circ\text{C}$	$R_{DS(ON)}$	-	-	0.024 0.042	Ω
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}$, $I_D = -250\mu\text{A}$	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} \geq 10\text{V}$, $I_D = -38\text{A}$	g_{fs}	21	-	-	$\text{S}(1/\Omega)$
ZERO GATE VOLTAGE DRAIN CURRENT, $T_J = 25^\circ\text{C}$ $(V_{DS} = -44\text{V}$, $V_{GS} = 0\text{V})$, $T_J = 125^\circ\text{C}$	I_{DSS}	-	-	25 250	μA
GATE TO SOURCE LEAKAGE FORWARD $V_{GS} = 20\text{V}$ GATE TO SOURCE LEAKAGE REVERSE $V_{GS} = -20\text{V}$	I_{GSS}	-	-	100 -100	nA
TOTAL GATE CHARGE $V_{GS} = -10\text{V}$, GATE TO SOURCE CHARGE $V_{DS} = -44\text{V}$, GATE TO DRAIN CHARGE $I_D = 5.5\text{A}$	Q_g Q_{gs} Q_{gd}	-	-	180 32 86	nC
TURN ON DELAY TIME $V_{DD} = -28\text{V}$, RISE TIME $I_D = -38\text{A}$, TURN OFF DELAY TIME $R_G = 2.5\Omega$, FALL TIME $V_{GS} \geq 10\text{V}$	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	18 99 61 96	-	nsec
DIODE FORWARD VOLTAGE $T_J = 25^\circ\text{C}$, $I_S = -38\text{V}$ $V_{GS} = 0\text{V}$	V_{SD}	-	-	1.4	Volts
REVERSE RECOVERY TIME $T_J = 25^\circ\text{C}$, $I_S = -10\text{A}$, $di/dt \leq -100\text{A}/\mu\text{sec}$, REVERSE RECOVERY CHARGE $V_{DD} \leq 30\text{V}$	t_{rr} Q_{rr}	-	130 350	-	nsec μC
INPUT CAPACITANCE $V_{GS} = 0\text{V}$, $V_{DS} = 25\text{V}$, OUTPUT CAPACITANCE $f = 1.0\text{MHz}$ REVERSE TRANSFER CAPACITANCE	C_{iss} C_{oss} C_{rss}	-	3400 1400 640	-	pF

MECHANICAL DIMENSIONS: in Inches / mm

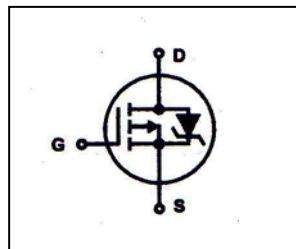


LCC-3P

PINOUT TABLE

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

SCHEMATIC



SENSITRON
DATA SHEET 338
REVISION C

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