

TECHNICAL DATA
DATA SHEET 319, REV. B

HERMETIC POWER MOSFET N-CHANNEL QUAD

FEATURES:

- 100 Volt, 0.35 Ohm, 6.2A MOSFET
- Fast Switching
- Low $R_{DS(on)}$
- Equivalent to IRF120 Series

MAXIMUM RATINGS

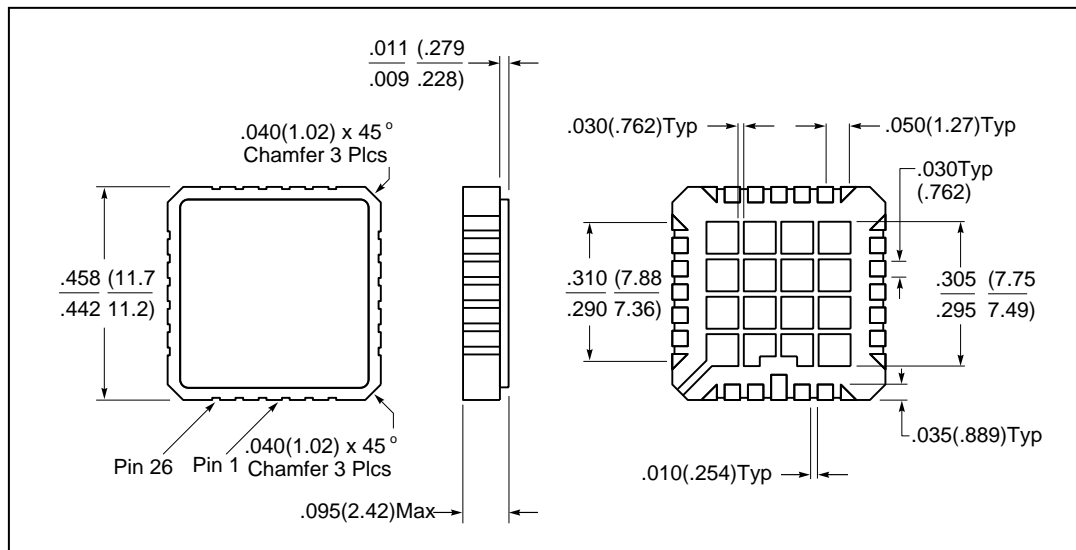
ALL RATINGS ARE AT $T_C = 25^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED.

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	-	-	6.2	Amps
PULSED DRAIN CURRENT (10ms)	I_{DM}	-	-	12	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	$^\circ\text{C}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	P_D	-	-	27	Watts
THERMAL RESISTANCE, JUNCTION TO CASE	R_{thJC}	-	-	4.7	$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0\text{V}, I_D = 250\mu\text{A}$	BV_{DSS}	100	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 10\text{V}, I_D = 0.6 \times \text{rated } I_D$	$R_{DS(ON)}$	-	-	0.35	Ω
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_D = 250\mu\text{A}$	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE (see Note) $V_{DS} \geq I_{D(ON)} \times R_{DS(ON)} \text{ Max.}, I_{DS} = 0.6 \times I_D$	g_{fs}	2.7	4.1	-	$\text{S}(1/\Omega)$
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = \text{Max. Rating}, V_{GS} = 0\text{V}$ $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0\text{V}, T_J = 125^\circ\text{C}$	I_{DSS}	-	-	250 1000	μA
GATE TO SOURCE LEAKAGE FORWARD $V_{GS} = 20\text{V}$	I_{GSS}	-	-	100	nA
GATE TO SOURCE LEAKAGE REVERSE $V_{GS} = -20\text{V}$				-100	
TURN ON DELAY TIME $V_{DD} = 50\text{V}, I_D = .5 \times I_D$	$t_{d(ON)}$	-	8.8	13	nsec
RISE TIME	t_r		30	45	
TURN OFF DELAY TIME $R_G = 18\Omega, V_{GS} = 10\text{V}$	$t_{d(OFF)}$		19	29	
FALL TIME	t_f		20	30	
DIODE FORWARD VOLTAGE $T_C = 25^\circ\text{C}, I_S = I_D, V_{GS} = 0\text{V}$	V_{SD}	-	-	2.5	Volts
REVERSE RECOVERY TIME $T_J = 25^\circ\text{C}, I_f = I_D, di_F/ds = 100\text{A}/\mu\text{sec}$	t_{rr}	55	110	240	nsec
INPUT CAPACITANCE $V_{GS} = 0\text{V}$	C_{iss}	-	350	-	pF
OUTPUT CAPACITANCE $V_{DS} = 25\text{V}$	C_{oss}		130		
REVERSE TRANSFER CAPACITANCE $f = 1.0\text{MHz}$	C_{rss}		36		

Note: This parameter is guaranteed by design, not tested in production.

SENSITRON
DATA SHEET 319, REV B
MECHANICAL DIMENSIONS: in Inches / m

LCC-28T
PINOUT TABLE

QUAD MOSFET LCC-28T	GATE	DRAIN	SOURCE
MOSFET 1	PIN 1	PINS 5, 6, 7	PINS 2, 3, 4
MOSFET 2	PIN 8	PINS 9, 10, 11	PINS 12, 13, 14
MOSFET 3	PIN 15	PINS 19, 20, 21	PINS 16, 17, 18
MOSFET 4	PIN 22	PINS 23, 24, 25	PINS 26, 27, 28

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