TECHNICAL DATA
DATA SHEET 5311, REV. A

HERMETIC RAD HARD POWER MOSFET
N-CHANNEL QUAD

FEATURES:

- **Four 250 Volt, 0.36 Ohm, 4.4A RAD HARD MOSFETs**
- **Single Event Effect (SEE) hardened, LET 55, Range: 90µm**
  - **V_{GS} = -15V, V_{DS} = 250V**
  - **V_{GS} = -20V, V_{DS} = 160V**
- **Total Ionization Dose (TID) hardened, 100kRad (Level R)**
- **Fast Switching**
- **Low $R_{DS\ (on)}$**
- **Pin compatible with IRHQ57214SE, with 1/3rd the $R_{DS(ON)}$**

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	I_D	-	-	4.4	Amps
PULSED DRAIN CURRENT (LIMITED BY T_{JMAX})	I_{DM}	-	-	18	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	°C
TOTAL DEVICE DISSIPATION	P_D	-	-	27	Watts
THERMAL RESISTANCE, JUNCTION TO CASE	R_{thJC}	-	-	4.7	°C/W
AVALANCE ENERGY	E_{AS}	-	-	20	mJ

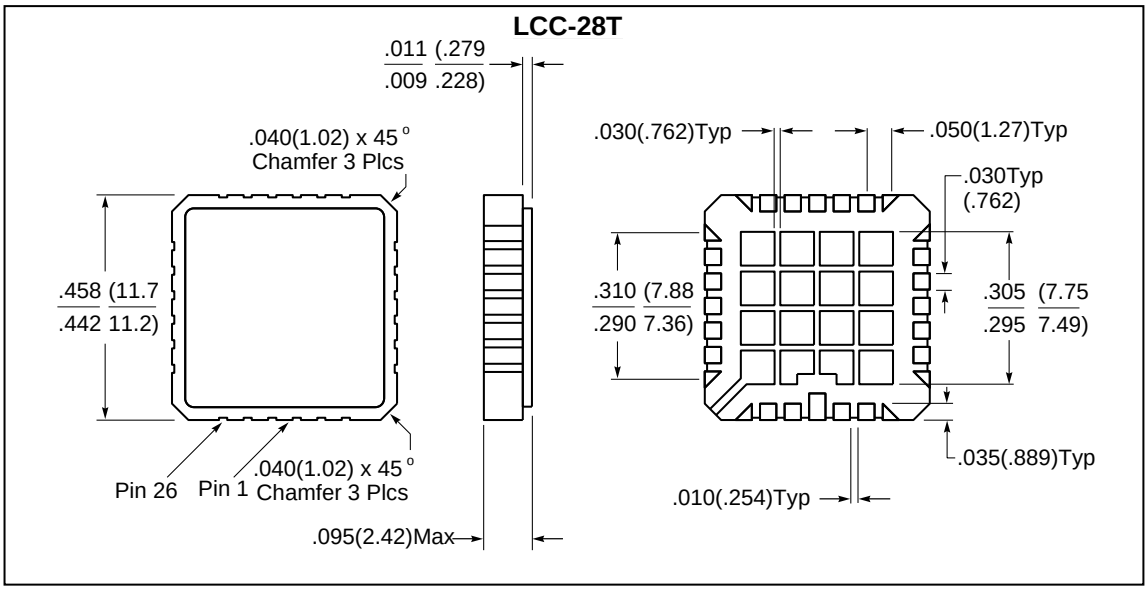
ELECTRICAL CHARACTERISTICS

CHARACTERISTIC		SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE	V_{GS} = 0V, I_D = 250µA	BV_{DSS}	250	295	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE		$R_{DS(ON)}$				Ω
	V_{GS} = 10V, I_D = 3A		-	0.36	0.45	
	V_{GS} = 10V, I_D = 3A, T_A = 125°C		-	-	0.95	
GATE THRESHOLD VOLTAGE	$V_{DS} \geq V_{GS}$, I_D = 1mA	$V_{GS(th)}$	2.0	3.4	4.0	Volts
ZERO GATE VOLTAGE DRAIN CURRENT						
	V_{DS} = 200V, V_{GS} = 0V	I_{DSS}	-	-	15	µA
	V_{DS} = 200V, V_{GS} = 0V, T_A = 125°C		-	-	250	
GATE TO SOURCE LEAKAGE FORWARD	V_{GS} = 20V	I_{GSS}	-	-	100	nA
GATE TO SOURCE LEAKAGE REVERSE	V_{GS} = -20V		-	-	-100	
TURN ON DELAY TIME	V_{DD} = .5V_{DS},	$t_{d(ON)}$	-	10	14	
RISE TIME	I_D = 3A,	t_r	-	10	14	nsec
TURN OFF DELAY TIME	R_G = 4.7Ω	$t_{d(OFF)}$	-	15	20	
FALL TIME		t_f	-	11	16	
DIODE FORWARD VOLTAGE	I_S = 4.4A, V_{GS} = 0V	V_{SD}	-	0.95	1.3	Volts
REVERSE RECOVERY TIME	V_{DD} = .5V_{DS}, I_f = 4.4A	t_{rr}	-	210	250	nsec
INPUT CAPACITANCE	V_{GS} = 0 V	C_{iss}	-	580	700	
OUTPUT CAPACITANCE	V_{DS} = 100 V	C_{oss}	-	45	60	pF
REVERSE TRANSFER CAPACITANCE	f = 1.0MHz	C_{rss}	-	2.3	3	

***This product is subject to the International Traffic in Arms Regulations (ITAR), 22 C.F.R. Parts 120 - 130, and may not be exported without the appropriate U.S. Department of State authorization.*

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MECHANICAL DIMENSIONS: in Inches / mm



PINOUT TABLE

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

Note: Pins 4, 7, 11, 14, 18, 21, 25 and 28 are Not Connected.

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