

TECHNICAL DATA
DATA SHEET 4069, REV -

HERMETIC POWER MOSFET N-CHANNEL

FEATURES:

- 55 Volt, 0.016 Ohm MOSFET
- Hermetically Sealed
- Add a "C" after the SHD for ceramic seals (SHDC220455)
- Surface Mount Package

MAXIMUM RATINGS

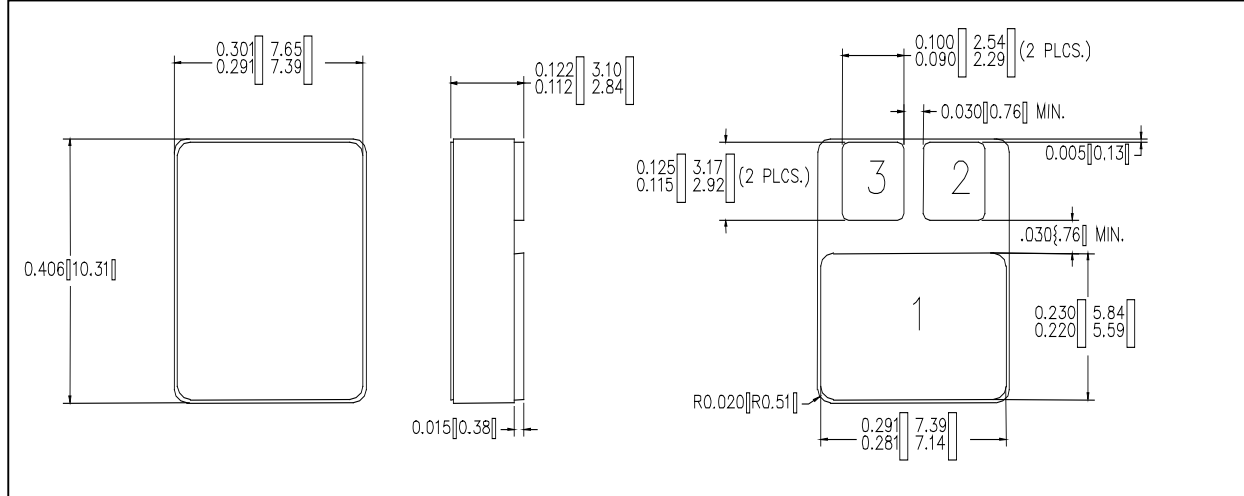
ALL RATINGS ARE AT $T_A = 25^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	± 20	Volts
CONTINUOUS DRAIN CURRENT $V_{GS} = 10V, T_C = 25^\circ\text{C}$ $V_{GS} = 10V, T_C = 100^\circ\text{C}$	I_D	-	-	22 16	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_{DM}	-	-	88	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+175	$^\circ\text{C}$
TERMAL RESISTANCE JUNCTION TO CASE	$R_{\theta JC}$	-	-	1.7	$^\circ\text{C}/\text{W}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	P_D	-	-	75	Watts

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0V, I_D = 250 \mu\text{A}$	BV_{DSS}	55	-	-	Volts
DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 10V, I_D = 22A$	$R_{DS(ON)}$	-	-	0.016	Ω
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_D = 250\mu\text{A}$	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} = V_{GS}, I_D = 22A$	g_{fs}	22	-	-	S(1/ Ω)
ZERO GATE VOLTAGE DRAIN CURRENT, $T_J = 25^\circ\text{C}$ ($V_{DS} = 55V, V_{GS} = 0V$), $T_J = 125^\circ\text{C}$	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 GATE TO SOURCE CHARGE GATE TO DRAIN CHARGE $V_{GS} = 10V, V_{DS} = 44V, I_D = 22A$	Q_g Q_{gs} Q_{gd}	-	-	101 19 41	nC
TURN ON DELAY TIME RISE TIME TURN OFF DELAY TIME FALL TIME $V_{DD} = 28V, I_D = 22A, R_G = 5.1\Omega, V_{GS} = 10V$	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	-	23 141 60 98	nsec
DIODE FORWARD VOLTAGE $T_J = 25^\circ\text{C}, I_S = 22A, V_{GS} = 0V$	V_{SD}	-	-	1.3	Volts
REVERSE RECOVERY TIME $T_J = 25^\circ\text{C}, I_S = 22A, di/dt \leq 100A/\mu\text{sec}$	t_{rr}	-	68	104	nsec
REVERSE RECOVERY CHARGE $V_{DD} \leq 30V$	Q_{rr}	-	-	210	μC
INPUT CAPACITANCE OUTPUT CAPACITANCE REVERSE TRANSFER CAPACITANCE $V_{GS} = 0V, V_{DS} = 25V, f = 1.0\text{MHz}$	C_{iss} C_{oss} C_{rss}	-	1900 620 270	-	pF

MECHANICAL DIMENSIONS: in Inches / mm



LCC-5

PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
N Channel Mosfet	DRAIN	GATE	SOURCE

TECHNICAL DATA

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