

TECHNICAL DATA  
DATA SHEET 4067, REV B

## HERMETIC POWER MOSFET N-CHANNEL

### FEATURES:

- 30 Volt, 0.019 Ohm MOSFET
- Hermetically Sealed
- Add a "C" after the SHD for ceramic seals (SHDC220212)
- Surface Mount Package

### MAXIMUM RATINGS

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

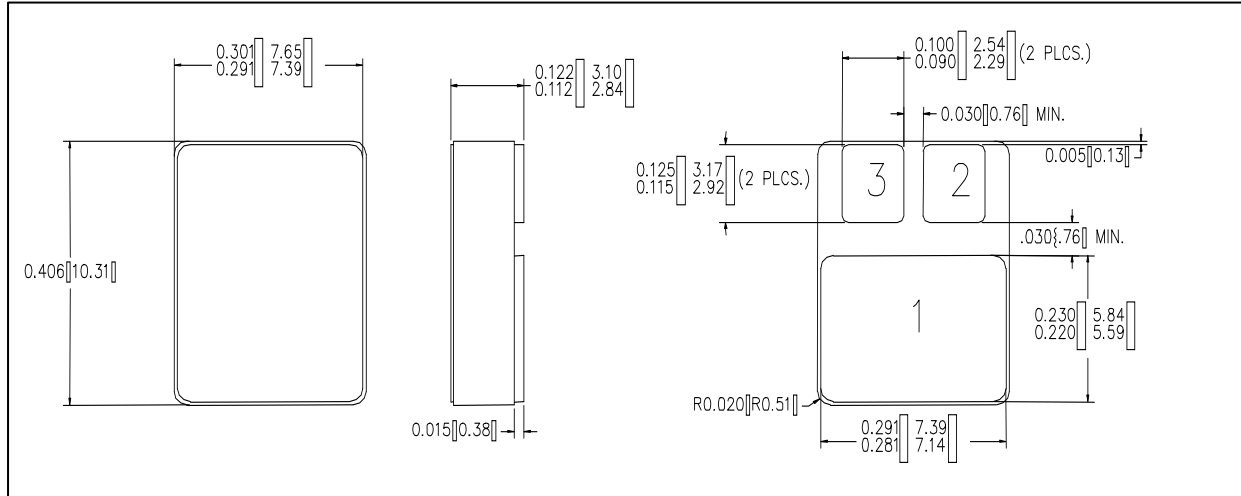
GATE TO SOURCE VOLTAGE	$V_{GS}$	-	-	$\pm 20$	Volts
CONTINUOUS DRAIN CURRENT $V_{GS} = 10V, T_C = 25^\circ\text{C}$ $V_{GS} = 10V, T_C = 100^\circ\text{C}$	$I_D$	-	-	13 9	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	$I_{DM}$	-	-	40	Amps
OPERATING AND STORAGE TEMPERATURE	$T_{OP}/T_{STG}$	-55	-	+150	$^\circ\text{C}$
THERMAL 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 $V_{GS} = 0V, I_D = 250 \mu\text{A}$	$BV_{DSS}$	30	-	-	Volts
DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 10V, I_D = 7.3A$ $V_{GS} = 4.5V, I_D = 3.7A$	$R_{DS(ON)}$	-	-	0.019 0.030	$\Omega$
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_D = 250\mu\text{A}$	$V_{GS(th)}$	1.0	-	3.0	Volts
ZERO GATE VOLTAGE DRAIN CURRENT, $T_J = 25^\circ\text{C}$ $(V_{DS} = 30V, V_{GS} = 0V), T_J = 125^\circ\text{C}$	$I_{DSS}$	-	-	25 250	$\mu\text{A}$
GATE TO SOURCE LEAKAGE FORWARD $V_{GS} = 16V$ GATE TO SOURCE LEAKAGE REVERSE $V_{GS} = -16V$	$I_{GSS}$	-	-	100 -100	nA
TOTAL GATE CHARGE $V_{GS} = 10V,$ GATE TO SOURCE CHARGE $V_{DS} = 24V,$ GATE TO DRAIN CHARGE $I_D = 7.3A$	$Q_g$ $Q_{gs}$ $Q_{gd}$	-	-	80 20 23	nC
TURN ON DELAY TIME $V_{DD} = 15V,$ RISE TIME $I_D = 7.3A,$ TURN OFF DELAY TIME $R_G = 6.2\Omega,$ FALL TIME $V_{GS} = 10V$	$t_{d(ON)}$ $t_r$ $t_{d(OFF)}$ $t_f$	-	20 80 80 80	-	nsec
DIODE FORWARD VOLTAGE $T_J = 25^\circ\text{C}, I_S = 7.3A$ $V_{GS} = 0V$	$V_{SD}$	-	-	1.0	Volts
REVERSE RECOVERY TIME $T_J = 25^\circ\text{C},$ $I_S = 7.3A,$ $di/dt = 100A/\mu\text{sec},$ REVERSE RECOVERY CHARGE $V_{DD} = 25V$	$t_{rr}$ $Q_{rr}$	-	110 300	-	nsec $\mu\text{C}$
INPUT CAPACITANCE $V_{GS} = 0V, V_{DS} = 25V,$ OUTPUT CAPACITANCE $f = 1\text{MHz}$ REVERSE TRANSFER CAPACITANCE	$C_{iss}$ $C_{oss}$ $C_{rss}$	-	1640 660 220	-	pF

**SENSITRON**  
**DATA SHEET 4067, REV. B**

**MECHANICAL DIMENSIONS: in Inches / mm**



**LCC-5**

**PINOUT TABLE**

N Channel Mosfet	DRAIN	GATE	SOURCE

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