TECHNICAL DATA
DATA SHEET 4322, REV. A

HERMETIC POWER MOSFET
N-CHANNEL

SHD231006S -- S-100 (JANTX level room temp) Screening per Sensitron datasheet

FEATURES:

- **60 Volt, 3.0 Ohm, 0.25 A MOSFET**
- **Isolated Hermetic, Ceramic Package**
- **Fast Switching**
- **Low $R_{DS\ (on)}$**

MAXIMUM RATINGS

ALL RATINGS ARE AT T_C = 25°C UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE VOLTAGE	V_{DS}	-	-	60	Volts
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	±20	Volts
ON-STATE DRAIN CURRENT @ T_C = 25°C	$I_{D\ (on)}$	-	-	0.25	Amps
PULSED DRAIN CURRENT @ T_C = 25°C	I_{DM}	-	-	1.3	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	°C
TOTAL DEVICE DISSIPATION @ T_C = 25°C	P_D	-	-	2.5	W
THERMAL RESISTANCE, JUNCTION TO CASE	R_{thJC}	-	-	50	°C/W

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = 0V, I_D = 10µA	BV_{DSS}	60	-	-	Volts
ON-STATE DRAIN CURRENT V_{DS} = 7.5V, V_{GS} = 10V Pulse width = 300µs, Duty cycle ≤ 2%	$I_{D(on)}$	-	0.8	-	Amp
STATIC DRAIN TO SOURCE ON STATE RESISTANCE Pulse width = 300µs, V_{GS} = 10V, I_D = 500mA Duty cycle ≤ 2% V_{GS} = 5V, I_D = 200mA	$R_{DS(ON)}$	-	-	 3.0 4.0	Ω
GATE THRESHOLD VOLTAGE V_{DS} = V_{GS}, I_D = 250µA	$V_{GS(th)}$	1.0	-	2.5	Volts
FORWARD TRANSCONDUCTANCE V_{DS} = 15V, I_D = 200mA	g_{fs}	-	250	-	S(1/Ω)
ZERO GATE VOLTAGE DRAIN CURRENT V_{DS} = 60V, V_{GS} = 0V V_{DS} = 60V, V_{GS} = 0V, T_C = 125°C	I_{DSS}	-	-	 1 500	µA
GATE TO SOURCE LEAKAGE FORWARD V_{GS} = 15V GATE TO SOURCE LEAKAGE REVERSE V_{GS} = -15V V_{DS} = 0V	I_{GSS}	-	-	1 -1	µA
TOTAL GATE CHARGE V_{DS} = 30V, GATE-SOURCE CHARGE V_{GS} = 10V, GATE-DRAIN CHARGE I_D = 250mA	Q_g Q_{gs} Q_{gd}		0.4 0.06 0.06	0.6	nC
TURN ON DELAY TIME V_{DD} = 25V, RISE TIME I_D = 150mA, TURN OFF DELAY TIME FALL TIME	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	7.5 6.0 7.5 3.0	20 20 	nsec
INPUT CAPACITANCE V_{GS} = 0 V, OUTPUT CAPACITANCE V_{DS} = 25 V, REVERSE TRANSFER CAPACITANCE f = 1.0MHz	C_{iss} C_{oss} C_{rss}	-	25 6.0 1.2	-	pF

SENSITRON
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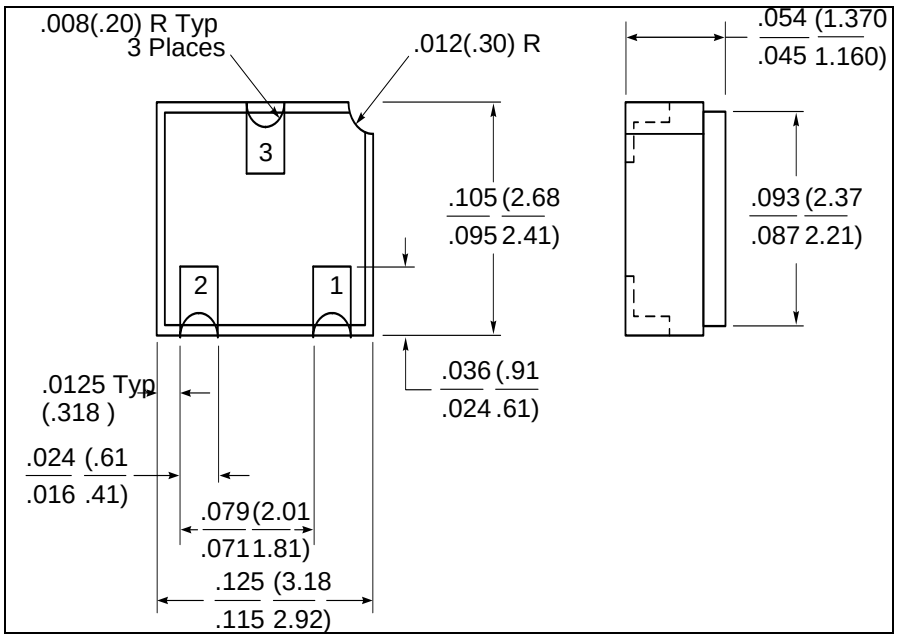
MECHANICAL DIMENSIONS: in Inches / mm



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PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
N Channel FET	Gate	Source	Drain