

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

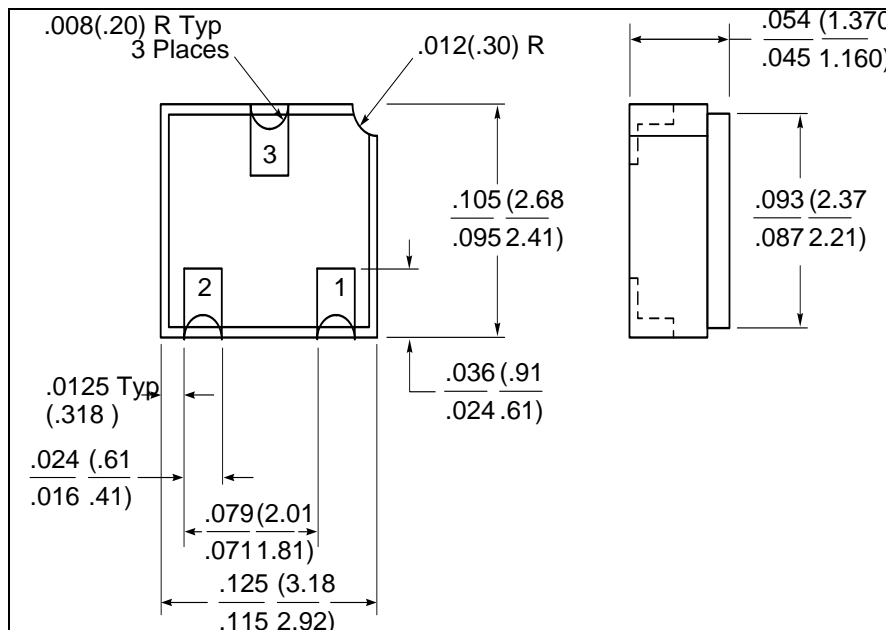
ALL RATINGS ARE AT $T_C = 25^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED.

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 @ $T_C = 25^\circ\text{C}$	$I_{D(on)}$	-	-	0.25	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_{DM}	-	-	1.3	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	-	-	2.5	W
THERMAL RESISTANCE, JUNCTION TO CASE	R_{thJC}	-	-	50	$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS

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

SENSITRON

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MECHANICAL DIMENSIONS: in Inches / mm

LCC-3
PINOUT TABLE

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

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