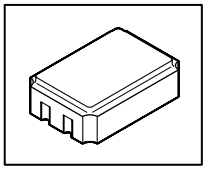
**TECHNICAL DATA**
**DATA SHEET 5032, REV. A**

# HERMETIC POWER MOSFET N-CHANNEL



**SHD246723S -- S-100 (JANTX) Screening**

**FEATURES:**

- **60 Volt, 1.6 Ohm, 0.3 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 | $I_{D\ (on)}$ | - | - | 0.3 | Amps |
| PULSED DRAIN CURRENT @ $T_C$ = 25°C | $I_{DM}$ | - | - | 3.0 | Amps |
| OPERATING AND STORAGE TEMPERATURE | $T_{OP}/T_{STG}$ | -55 | - | +150 | °C |
| TOTAL DEVICE DISSIPATION @ $T_C$ = 25°C | $P_D$ | - | - | 1250 | mW |
| THERMAL RESISTANCE, JUNCTION TO CASE | $R_{thJC}$ | - | - | 100 | °C/W |

## ELECTRICAL CHARACTERISTICS

| | | | | | |
|---|---|---|---|---|---|
| DRAIN TO SOURCE BREAKDOWN VOLTAGE<br>$V_{GS}$ = 0V, $I_D$ = 0.1 mA | $BV_{DSS}$ | 60 | - | - | Volts |
| STATIC DRAIN TO SOURCE ON STATE RESISTANCE<br>Pulse width = 300µs, $V_{GS}$ = 10V, $I_D$ = 500mA<br>Duty cycle ≤ 2% $V_{GS}$ = 5V, $I_D$ = 200mA | $R_{DS(ON)}$ | - | - | <br>1.6<br>4.0 | Ω |
| GATE THRESHOLD VOLTAGE $V_{DS}$ = $V_{GS}$, $I_D$ = 0.25 mA | $V_{GS(th)}$ | 1.0 | - | 2.5 | Volts |
| ZERO GATE VOLTAGE DRAIN CURRENT<br>$V_{DS}$ = 60V, $V_{GS}$ = 0V<br>$V_{DS}$ = 48V, $V_{GS}$ = 0V, $T_J$ = 125°C | $I_{DSS}$ | - | - | <br>10<br>100 | µA |
| GATE TO SOURCE LEAKAGE FORWARD $V_{GS}$ = 10V<br>GATE TO SOURCE LEAKAGE REVERSE $V_{GS}$ = -10V<br>$V_{DS}$ = 0V | $I_{GSS}$ | - | - | 200<br>-200 | nA |
| TURN ON TIME $V_{DD}$ = 30V,<br>$I_D$ = 200mA,<br>TURN OFF $V_{GS}$ = 10V | $t_{(ON)}$<br><br>$t_{(OFF)}$ | - | 25<br><br>35 | -<br><br>- | nsec |
| INPUT CAPACITANCE $V_{GS}$ = 0 V,<br>OUTPUT CAPACITANCE $V_{DS}$ = 25 V,<br>REVERSE TRANSFER CAPACITANCE f = 1.0MHz | $C_{iss}$<br>$C_{oss}$<br>$C_{rss}$ | - | 30<br>7<br>3 | - | pF |

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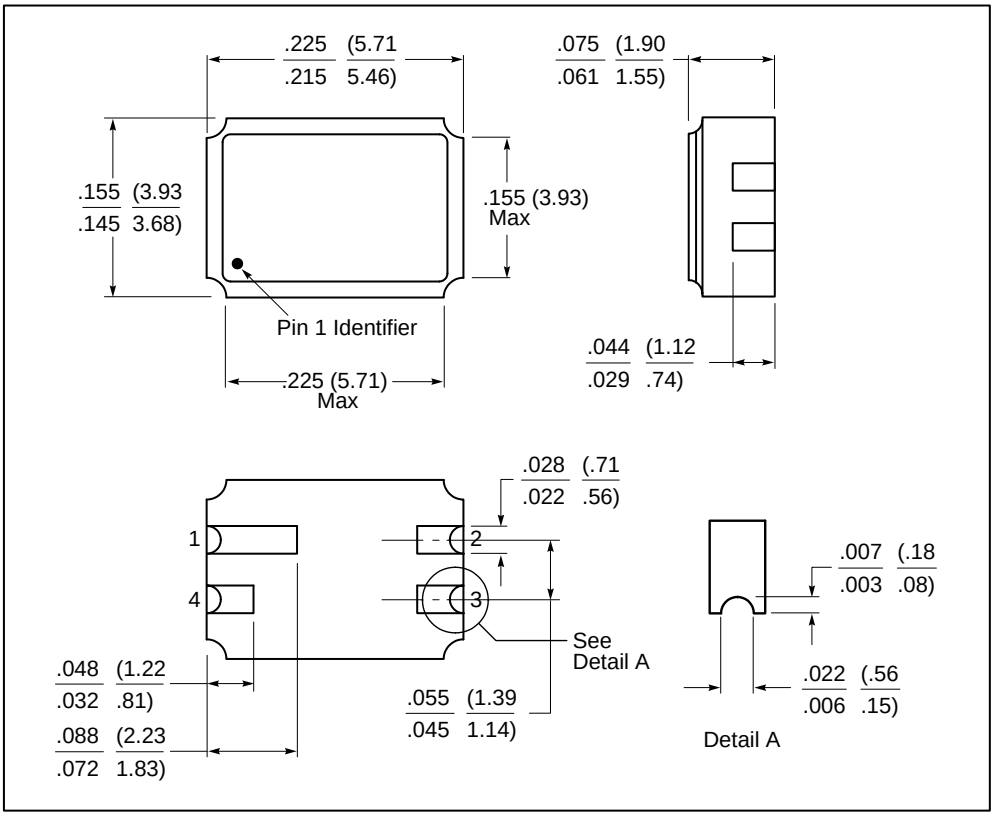
**SENSITRON**

**DATA SHEET 5032**
**REV. -**

## MECHANICAL DIMENSIONS: in Inches / mm




## LCC-4

**PINOUTS**

| DEVICE TYPE | PIN 1 | PIN 2 | PIN 3 | PIN 4 |
|---|---|---|---|---|
| N-CHANNEL MOSFET IN A LCC-4 CERAMIC PACKAGE | DRAIN | SOURCE | GATE | N/C |