

PRELIMINARY TECHNICAL DATA
DATASHEET 5460, Rev -

Diode Array

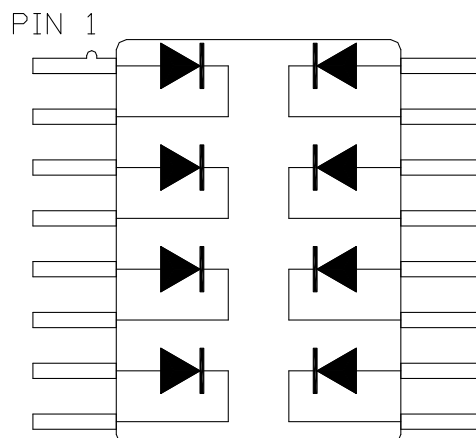
- **Devices are serialized**
- **Eight 1N5806 diodes in surface mount package**
- **Die manufactured on qualified JANS line**
- **Built and screened to space level quality (SDA1008SS)**
- **Quality Conformance Inspection (QCI) in accordance with MIL-PRF-38534 is performed on each lot (SDA1008SS)**
- **Add suffix "S" for screening per MIL-PRF-38534, Class H (SDA1008S)**
- **Add suffix "SS" for Space Level Screening per MIL-PRF-38534, Class K (SDA1008SS)**

MAX. RATINGS / ELECTRICAL CHARACTERISTICS All ratings at are $T_A = 25^\circ\text{C}$ unless otherwise specified

| RATING | SYMBOL | MAX | UNIT |
|---|---|-------------|--------------------|
| Peak Inverse Voltage (DC) | PIV | 150 | V |
| Average DC Output Current per leg (1) $T_A = 55^\circ\text{C}$ $T_A = 100^\circ\text{C}$ | I_O | 1.0 0.75 | A |
| Peak Single Cycle Surge Current per leg (2) ($T_p=8.3\text{ms}$ single half-Sine wave) | I_{fsm} | 10 | A |
| Max. Operating Junction Temperature | T_J | -55 to +150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 to +175 | $^\circ\text{C}$ |
| Maximum forward voltage @ 1A | V_f | 1.0 | V |
| Maximum Instantaneous Reverse Current At Rated (PIV) | $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$ | 1 50 | μA |
| Max. Reverse Recovery Time $I_F = 0.5\text{ A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$ | t_{rr} | 35 | ns |
| Thermal Resistance Junction to Case | θ_{JC} | 13 | $^\circ\text{C/W}$ |

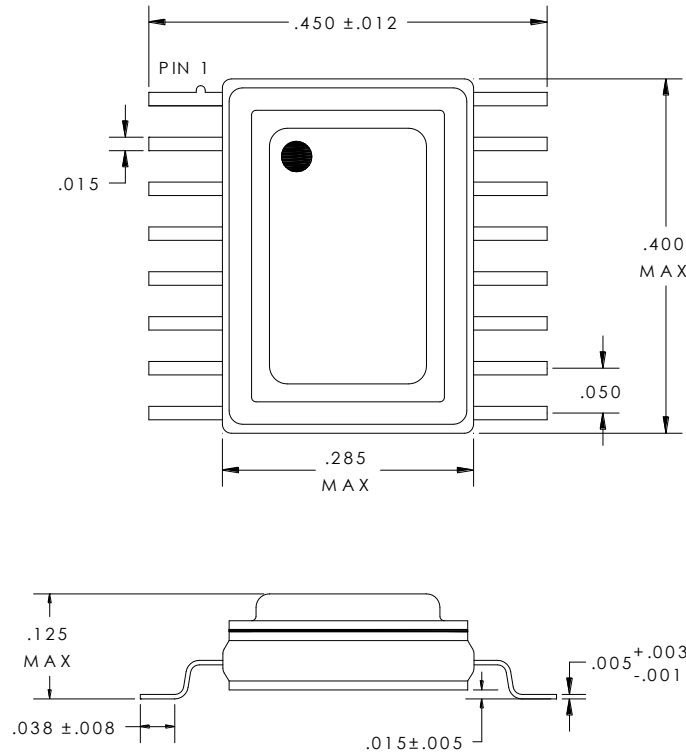
Note: (1) Total current is package dissipation limited to 3A
(2) Surge rating is limited by package wirebond

Electrical Schematic



PRELIMINARY TECHNICAL DATA
DATASHEET 5460, Rev -

Mechanical Outline



PART ORDERING INFORMATION

| Part Number | Sensitron Screening Level | Screened In Accordance to: |
|------------------|---------------------------|-------------------------------|
| SDA1008 | - | - |
| SDA1008S | S | MIL-PRF-38534, Class H |
| SDA1008SS | SS | MIL-PRF-38534, Class K |

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.