

TECHNICAL DATA  
DATA SHEET 5482, REV.

## Diode Array

- **Devices Are Serialized**
- **Eight sets of double diodes in a single package**
- **Die manufactured on qualified JANS line**
- **Built and screened to space level quality (SDA1009SS)**
- **Quality Conformance Inspection (QCI) in accordance with MIL-PRF-38534 is performed on each lot (SDA1009SS)**
- **Add suffix "S" for screening per MIL-PRF-38534, Class H (SDA1009S)**
- **Add suffix "SS" for Space Level Screening per MIL-PRF-38534, Class K (SDA1009SS)**
- **Each diode similar to JANS1N5615**

### MAX. RATINGS / ELECTRICAL CHARACTERISTICS FOR EACH DIODE

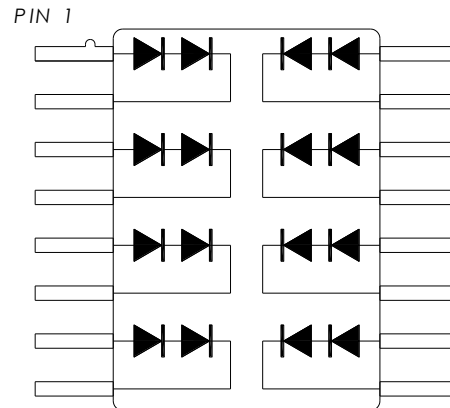
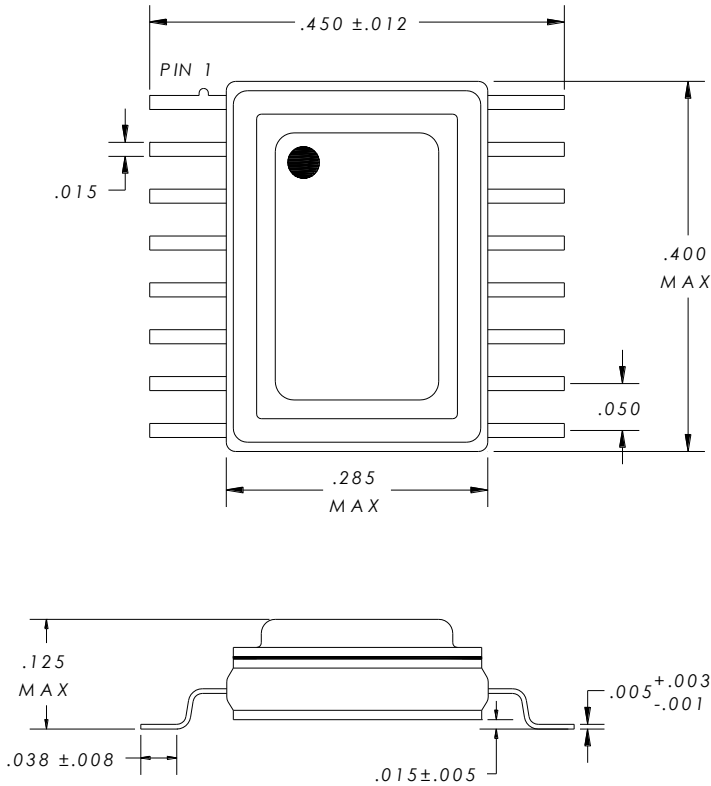
All rating at are  $T_A = 25^{\circ}\text{C}$  unless otherwise specified

RATING	SYMBOL	MAX	UNIT
Peak Inverse Voltage (DC)	PIV	400	V
Average DC Output Current Per Diode $T_A = 55^{\circ}\text{C}$ $T_A = 100^{\circ}\text{C}$	$I_O$	1 0.75	A
Peak Single Cycle Surge Current <sup>(1)</sup> ( $T_P=8.3\text{ms}$ single half-Sine wave)	$I_{FSM}$	10	A
Steady State Power Dissipation per Package <sup>(2)</sup>	$P_T$	1000	mW
Max. Operating Junction Temperature	$T_J$	-55 to +150	$^{\circ}\text{C}$
Max. Operating Ambient Temperature	$T_{OP}$	-30 to 100	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +175	$^{\circ}\text{C}$
Maximum forward voltage @ 3.0A $T_p = 300\mu\text{s}$ ; 2% duty cycle	$V_f$	3.2	V
Maximum Instantaneous Reverse Current At Rated (PIV)	$T_A = 25^{\circ}\text{C}$ $T_A = 100^{\circ}\text{C}$	0.5 25	$\mu\text{A}$
Max. Reverse Recovery Time $I_F = 0.5\text{A}$ , $I_R = 1.0\text{A}$ , $I_{RR} = 0.25\text{A}$	$t_{rr}$	150	ns
Max. Capacitance $f = 1\text{MHz}$ , $V_R = 12\text{V}$	$C_T$	30	pF
Thermal Resistance Junction to Case	$\theta_{JC}$	21	$^{\circ}\text{C/W}$

Note: (1) Each diode  
(2) Derate at  $8\text{mW}/^{\circ}\text{C}$  above  $25^{\circ}\text{C}$

**TECHNICAL DATA**  
**DATA SHEET 5482, REV.**

**Mechanical Outline**



**Electrical Schematic**

**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.