

TECHNICAL DATA
DATA SHEET 5434, REV. A.1

Diode Array

- **Devices are serialized**
- **Eight 1N5615 diodes in surface mount package**
- **Die manufactured on qualified JANS line**
- **Built and screened to space level quality (SDA1006SS)**
- **Quality Conformance Inspection (QCI) in accordance with MIL-PRF-38534 is performed on each lot (SDA1006SS)**
- **Add suffix "S" for screening per MIL-PRF-38534, Class H (SDA1006S)**
- **Add suffix "SS" for Space Level Screening per MIL-PRF-38534, Class K (SDA1006SS)**

MAX. RATINGS / ELECTRICAL CHARACTERISTICS FOR EACH DIODE

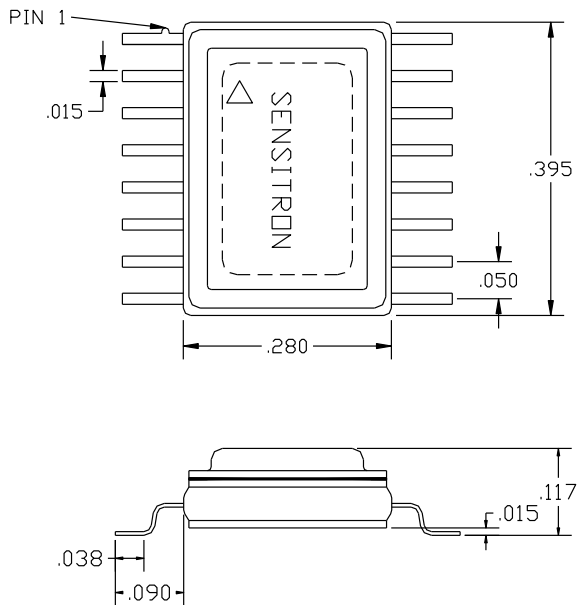
All rating at are $T_A = 25^{\circ}\text{C}$ unless otherwise specified

RATING	SYMBOL	MAX	UNIT
Peak Inverse Voltage (DC)	PIV	200	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 ⁽¹⁾ ($T_P=8.3\text{ms}$ single half-Sine wave)	I_{FSM}	10	A
Steady State Power Dissipation per Package ⁽²⁾	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	1.6	V
Maximum Instantaneous Reverse Current At Rated (PIV)	$T_A = 25^{\circ}\text{C}$ $T_A = 100^{\circ}\text{C}$	0.5 25	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}	150	ns
Max. Capacitance $f = 1\text{MHz}$, $V_R = 12\text{V}$	C_T	45	pF
Thermal Resistance Junction to Case	θ_{JC}	21	$^{\circ}\text{C/W}$

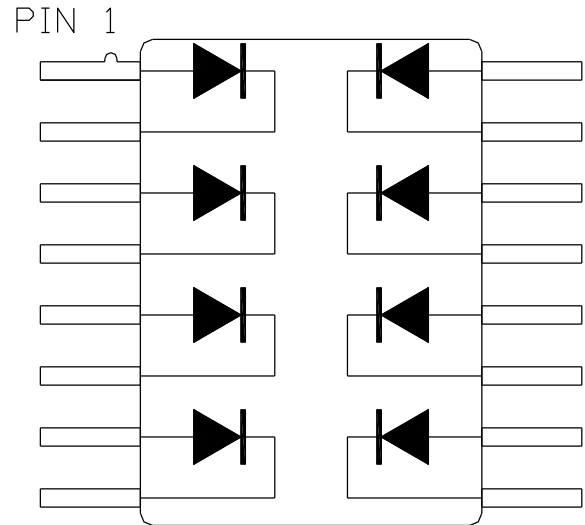
Note: (1) Each diode
(2) Derate at $8\text{mW}/^{\circ}\text{C}$ above 25°C

TECHNICAL DATA
DATA SHEET 5434, REV. A.1

Mechanical Outline



Electrical Schematic



PART ORDERING INFORMATION

Part Number	Sensitron Screening Level	Screened In Accordance to:
SDA1006	-	-
SDA1006S	S	MIL-PRF-38534, Class H
SDA1006SS	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.