

**SENSITRON**  
**SEMICONDUCTOR**

TECHNICAL DATA  
 DATASHEET 5581, REV –

**ULTRAFAST RECOVERY RECTIFIER**

Add suffix “S” to part number for S-100 screening, per MIL-PRF-19500, JANTXV level (i.e. SHD326363S)

**DESCRIPTION:** A 600 VOLT, 15 AMP, 50 NANOSECOND HERMETIC ULTRAFAST RECOVERY RECTIFIER IN A HERMETIC TO-257 PACKAGE.

**MAX. RATINGS AND ELECTRICAL CHARACTERISTICS**

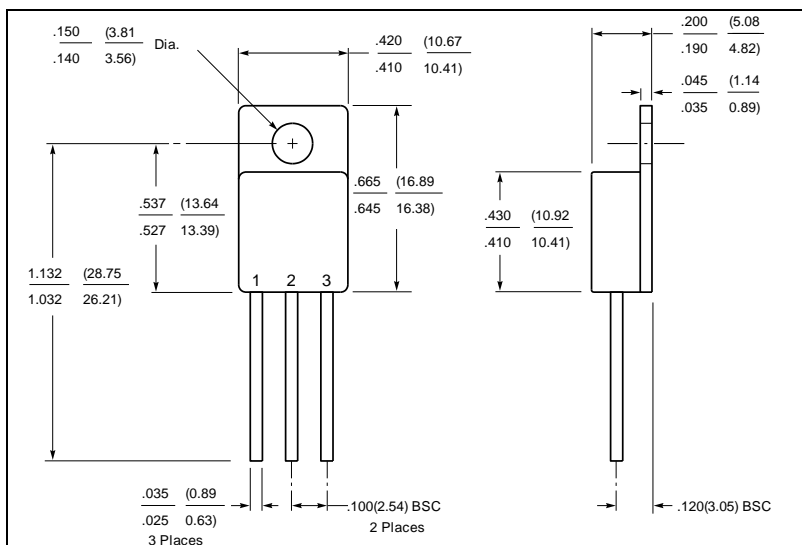
(T<sub>C</sub> = 25°C)

RATING	CONDITIONS	MIN	TYP	MAX	UNIT
Peak Inverse Voltage (PIV)	-	600	-	-	Vdc
Average DC Output Current (I <sub>O</sub> ) <sup>(1)</sup> (per leg)	T <sub>C</sub> = 100 °C	-	-	15	A
Peak Single Cycle Surge Current (I <sub>FSM</sub> ) <sup>(1)</sup>	t <sub>p</sub> = 8.3 ms Single Half Cycle Sine Wave Superimposed On Rated Load, T <sub>C</sub> = 25 °C	-	-	120	A(pk)
Operating and Storage Temp. (Top & Tstg)	-	-65	-	+150	°C
Maximum Forward Voltage (V <sub>f</sub> ) Per Leg	I <sub>F</sub> = 10 A (300 μsec pulse, duty cycle < 2%)	-	-	1.45	V
Maximum Instantaneous Reverse Current At Rated (PIV) Per Leg	T <sub>C</sub> = 25°C T <sub>C</sub> = 100°C	-	-	0.05 5	mA
Reverse Recovery Time (t <sub>rr</sub> ) Per Leg	I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1.0 A, I <sub>RR</sub> = 0.25A	-	-	50	ns
Thermal Resistance (θ <sub>JC</sub> )	Per Leg Per Package	-	-	1.8 0.9	°C/W
Maximum Junction Capacitance (C <sub>j</sub> ) Per Leg	V <sub>R</sub> = 10V, f = 1Mhz	-	-	150	pF

<sup>(1)</sup> Limited by the package.

**SENSITRON**  
**TECHNICAL DATA**  
**DATASHEET 5581, REV -**

**MECHANICAL DIMENSIONS In inches / mm**



**TO-257**

**PINOUT TABLE**

DEVICE TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE
COMMON CATHODE (P)	ANODE 1	COMMON CATHODE	ANODE 2
COMMON ANODE (N)	CATHODE 1	COMMON ANODE	CATHODE 2
DOUBLER (D)	ANODE	CATHODE / ANODE	CATHODE

**PART ORDERING INFORMATION:**

**SHD326363 XX X**

Part Number

**Screening Level (blank is no screening):**

Suffix	Screened in Accordance with:
blank	No screening level
SX	MIL-PRF-19500, TX Level
SV	MIL-PRF-19500, TXV Level
SS	MIL-PRF-19500, S Level

**QCI (blank is no QCI):**

Suffix	Inspection in Accordance with:
blank	No QCI
Q	MIL-PRF-19500 QCI

**SENSITRON**  
**TECHNICAL DATA**  
**DATASHEET 5581, REV -**

---

**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 writ ten 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.