

TECHNICAL DATA
DATA SHEET 4172, REV.-

VERY LOW DROP HERMETIC POWER SCHOTTKY RECTIFIER
(SINGLE / DUAL)

DESCRIPTION: A 30 VOLT, 45 AMP, POWER SCHOTTKY RECTIFIER IN A HERMETIC TO-258 PACKAGE.

MAXIMUM RATINGS

ALL RATINGS ARE @ $T_C = 25\text{ }^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	30	Volts
MAXIMUM DC OUTPUT CURRENT With Cathode Maintained (@ $T_C=70\text{ }^\circ\text{C}$) (Single / Doubler)	I_o	45	Amps
MAXIMUM DC OUTPUT CURRENT With Cathode Maintained (@ $T_C=70\text{ }^\circ\text{C}$) (Common Cathode / Common Anode)	I_o	60	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT PER LEG ($t = 8.3\text{ms}$, Sine)	I_{FSM}	200	Amps
MAXIMUM JUNCTION CAPACITANCE PER LEG ($V_r = 5\text{V}$)	C_T	3300	pF
MAXIMUM THERMAL RESISTANCE PER PACKAGE	$R_{\theta JC}$	0.47	$^\circ\text{C/W}$
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to + 150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

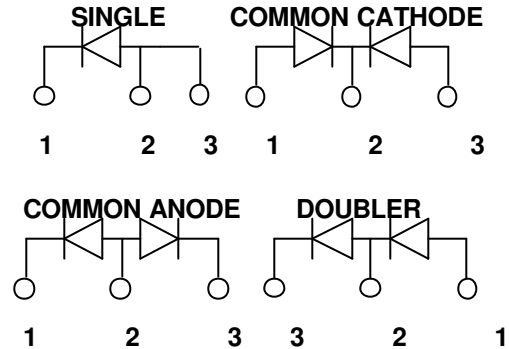
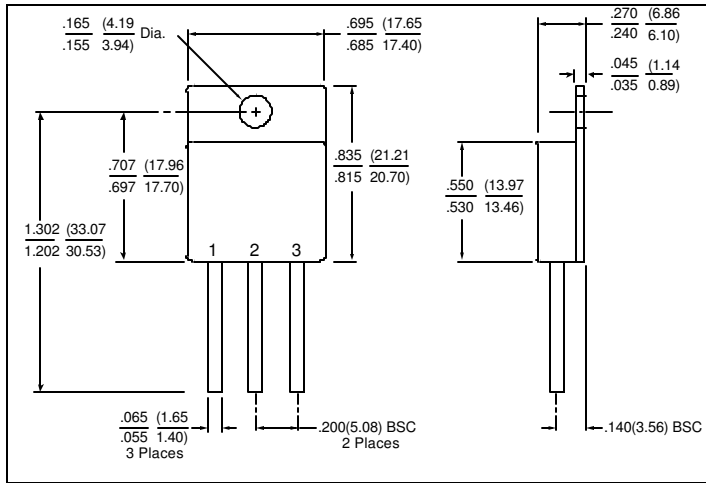
CHARACTERISTIC			
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ($I_f = 45\text{ Amps}$) PER LEG $T_J = 25\text{ }^\circ\text{C}$ $T_J = 100\text{ }^\circ\text{C}$	V_f	0.74 0.63	Volts
MAXIMUM REVERSE CURRENT (I_r , @ 30 V PIV) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	I_r	6 300	mA

SENSITRON SEMICONDUCTOR

SHD124511
SHD124511P
SHD124511N
SHD124511D

TECHNICAL DATA DATA SHEET 4172, REV. -

MECHANICAL DIMENSIONS: In Inches / mm

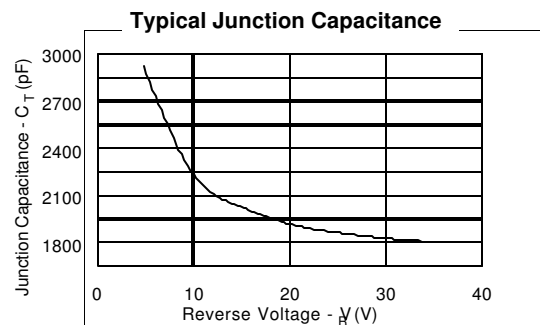
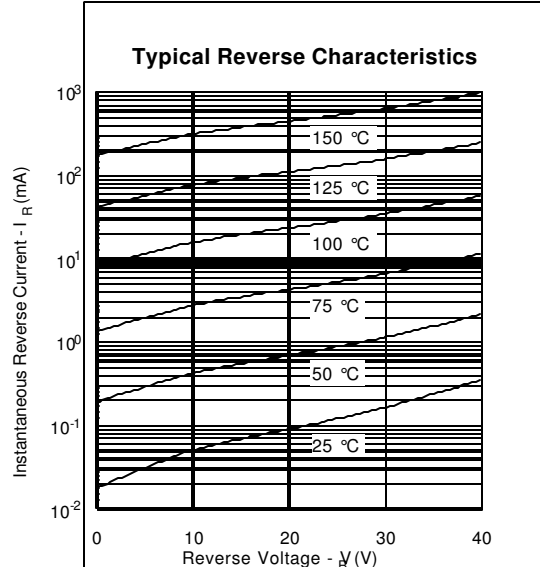
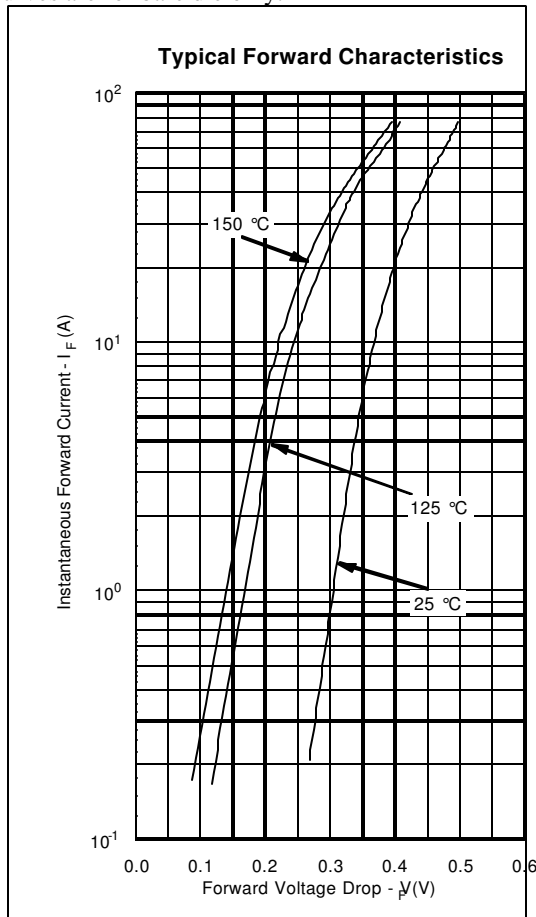


TO-258

PINOUT TABLE

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

Note: Vf curves are for bare die only.



TECHNICAL DATA

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.