

SENSITRON **SEMICONDUCTOR**

TECHNICAL DATA
DATA SHEET 710, REV. C

HERMETIC POWER ULTRAFAST RECTIFIER COMMON CATHODE

Add the letter "C" to the part number prefix – **SHDC** for package with ceramic seals.

DESCRIPTION: A 600 VOLT, 30 AMP, POWER ULTRAFAST RECTIFIER IN A HERMETIC TO-254 PACKAGE.

MAXIMUM RATINGS

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

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	600	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$)	I_o	30	Amps
PEAK SINGLE PULSE FORWARD CURRENT, 8.3 ms (per leg)	I_{FSM}	150	Amps
MAXIMUM THERMAL RESISTANCE PER LEG	$R_{\theta JC}$	2.2	$^\circ\text{C/W}$
MAXIMUM POWER DISSIPATION	P_D	57	Watts
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top/Tstg	-55 to + 150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

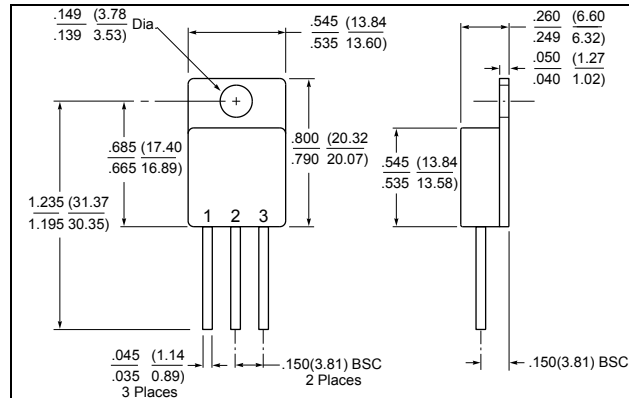
(ALL RATINGS ARE PER LEG)

CHARACTERISTIC				
MAXIMUM FORWARD VOLTAGE DROP, Pulsed	$T_C = 25^\circ\text{C}$ ($I_f = 15$ Amps)	V_f	1.7	Volts
MAXIMUM FORWARD VOLTAGE DROP, Pulsed	$T_C = 125^\circ\text{C}$ ($I_f = 15$ Amps)	V_f	1.6	Volts
MAXIMUM REVERSE CURRENT	$T_C = 25^\circ\text{C}$ I_r @ 600 PIV	I_r	10	μA
MAXIMUM REVERSE CURRENT	$T_C = 125^\circ\text{C}$ I_r @ 600 PIV	I_r	1.0	mA
MAXIMUM REVERSE RECOVERY TIME	$I_f = 0.5\text{A}$, $I_r = 1\text{A}$, $I_{rr} = 0.25\text{A}$	t_{rr}	60	nsec

SENSITRON

DATA SHEET 710, REV. C

MECHANICAL DIMENSIONS: In Inches / mm

TO-254

TYPE	PIN 1	PIN 2	PIN 3
ULTRAFAST RECTIFIER IN A TO-254 PACKAGE	ANODE 1	COMMON CATHODE	ANODE 2

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.