

# **SENSITRON** **SEMICONDUCTOR**

TECHNICAL DATA  
DATA SHEET 4168, REV. -

## HERMETIC POWER ULTRAFAST RECTIFIER

**DESCRIPTION:** A 600-VOLT, 15 AMP, POWER ULTRAFAST RECTIFIER IN A HERMETIC 2-LEAD TO-257 PACKAGE.

Note:

- Add the letter "C" to the part number prefix – **SHDC** for package with ceramic seals.
- Industry standard 1N6779

### MAXIMUM RATINGS

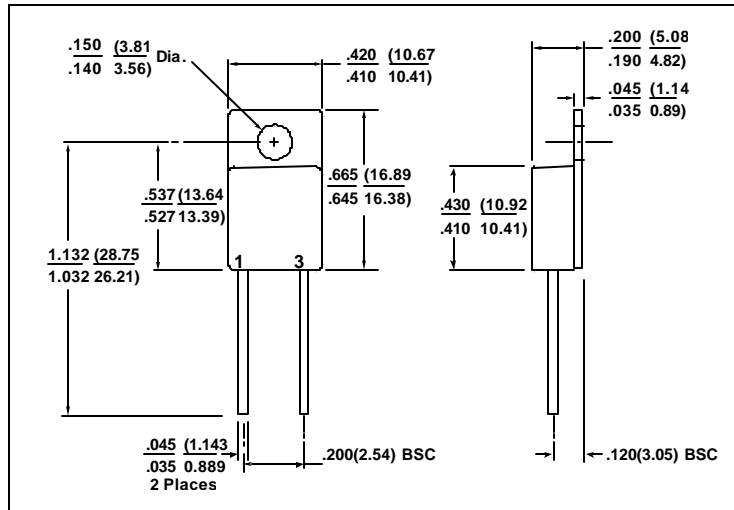
All ratings are @  $T_A = 25\text{ }^\circ\text{C}$  unless otherwise specified

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	600	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100\text{ }^\circ\text{C}$ )	$I_O$	15	Amps
PEAK SINGLE PULSE FORWARD CURRENT, 8.3 ms (per leg)	$I_{FSM}$	140	Amps
MAXIMUM THERMAL RESISTANCE	$R_{\theta JC}$	1.6	$^\circ\text{C/W}$
MAXIMUM POWER DISSIPATION	$P_D$	125	Watts
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to + 150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS

CHARACTERISTIC			
MAXIMUM FORWARD VOLTAGE DROP, Pulsed $T_C = 25\text{ }^\circ\text{C}$ $I_f = 8\text{ Amps}$ $I_f = 15\text{ Amps}$	$V_f$	1.4 1.6	Volts
MAXIMUM FORWARD VOLTAGE DROP, Pulsed $T_C = 100\text{ }^\circ\text{C}$ $I_f = 8\text{ Amps}$	$V_f$	1.3	Volts
MAXIMUM FORWARD VOLTAGE DROP, Pulsed $T_C = -55\text{ }^\circ\text{C}$ $I_f = 15\text{ Amps}$	$V_f$	1.8	Volts
MAXIMUM REVERSE CURRENT $T_C = 25\text{ }^\circ\text{C}$ $I_r$ @ 600 PIV	$I_r$	10	$\mu\text{A}$
MAXIMUM REVERSE CURRENT $T_C = 100\text{ }^\circ\text{C}$ $I_r$ @ 600 PIV	$I_r$	1.0	mA
JUNCTION CAPACITANCE $V_R = 5\text{V}$ , $F = 1\text{MHZ}$	$C_J$	300	pF
MAXIMUM REVERSE RECOVERY TIME $I_f = 1\text{A}$ , $di/dt = 50\text{A}/\mu\text{s}$ , $V_R = 200\text{V}$	$t_{rr}$	60	nsec

MECHANICAL DIMENSIONS: In Inches / mm



**TO-257**

TYPE	PIN 1	PIN 2
ULTRAFast RECTIFIER IN A 2-LEAD TO-257 PACKAGE	CATHODE	ANODE

**TECHNICAL DATA**

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