

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	μA
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

TECHNICAL DATA

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