

**SENSITRON**  
**SEMICONDUCTOR**

TECHNICAL DATA  
 DATA SHEET 4170, REV. -

**HERMETIC POWER SCHOTTKY RECTIFIER**  
**Ultra Low Reverse Leakage**  
**200°C Operating Temperature**

**Applications:**

· Switching Power Supply · Converters · Free-Wheeling Diodes · Polarity Protection Diode

**Features:**

- Ultra low Reverse Leakage Current
- Soft Reverse Recovery at Low and High Temperature
- Very Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long Term Reliability
- Guaranteed Reverse Avalanche Characteristics
- Out Performs 100 Volt Ultrafast Rectifiers
- Add Prefix C to SHD – For Ceramic Seals (SHDC)
- Add Suffix S for TX/TXV screening, SS For JANS Screening

**Maximum Ratings:**

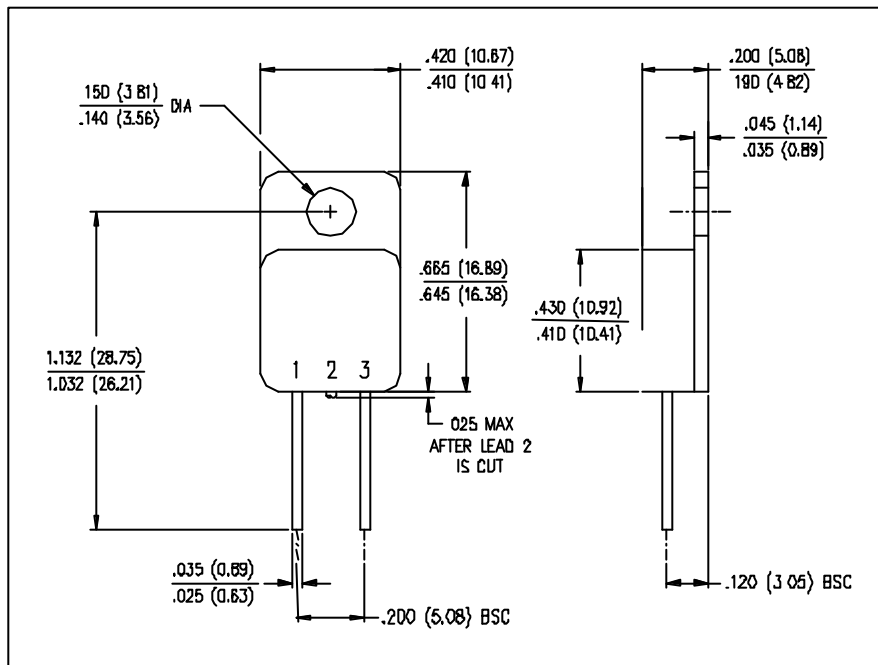
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	100	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	15	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, half Sine wave	150	A
Max. Thermal Resistance	$R_{\theta JC}$		2.1	°C/W
Max. Junction Temperature	$T_J$	-	-65 to +200	°C
Max. Storage Temperature	$T_{stg}$	-	-65 to +175	°C

**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 15A, Pulse, $T_J = 25\text{ °C}$	0.93	V
	$V_{F2}$	@ 15A, Pulse, $T_J = 125\text{ °C}$	0.84	V
Max. Reverse Current	$I_{R1}$	@ $V_R = 100V$ , Pulse, $T_J = 25\text{ °C}$	.01	mA
	$I_{R2}$	@ $V_R = 100V$ , Pulse, $T_J = 125\text{ °C}$	1.0	mA
Max. Junction Capacitance	$C_T$	@ $V_R = 5V$ , $T_C = 25\text{ °C}$ $f_{SIG} = 1MHz$ , $V_{SIG} = 50mV$ (p-p)	500	pF

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**Mechanical Dimensions: In Inches / mm**

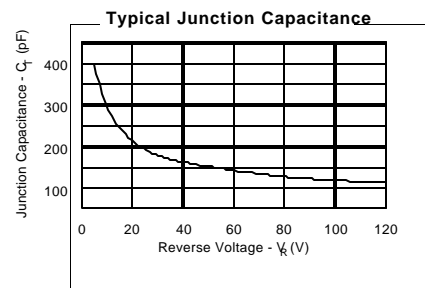
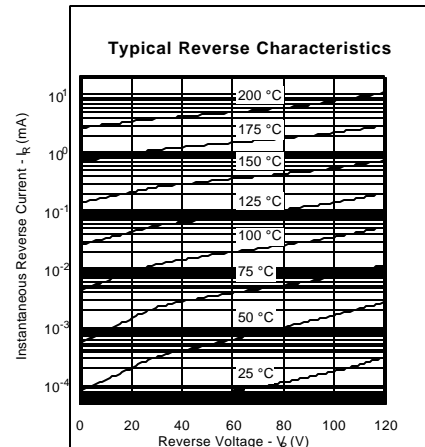
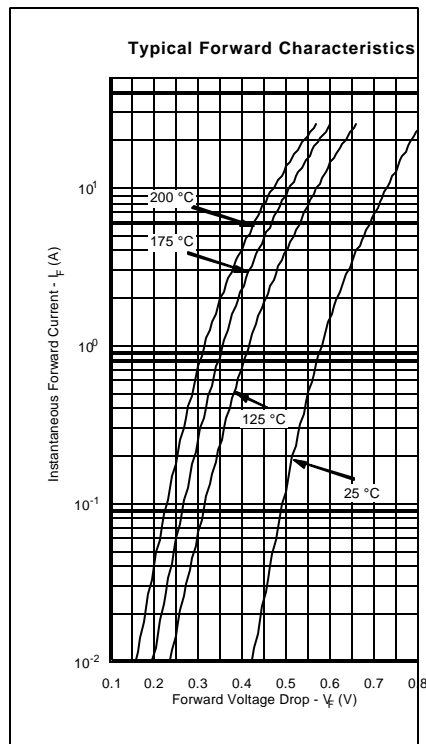


**MODIFIED TO-257**

**PINOUT TABLE**

TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	-	ANODE

**Note:** The  $V_f$  curves shown are for the SD125SCU100 unpackaged die only.



**TECHNICAL DATA**

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