

TECHNICAL DATA  
DATA SHEET 371, REV. A

**SCHOTTKY RECTIFIER**  
**Very Low Forward Voltage Drop**  
**200°C Operating Temperature**

**Applications:**

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

**Features:**

- 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

**Maximum Ratings:**

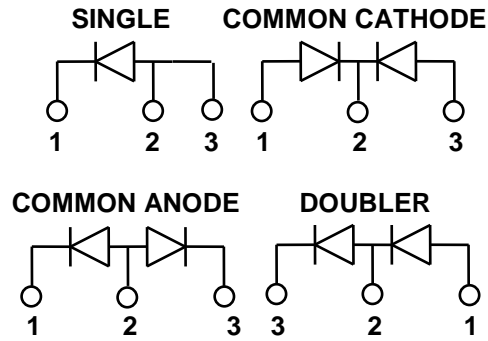
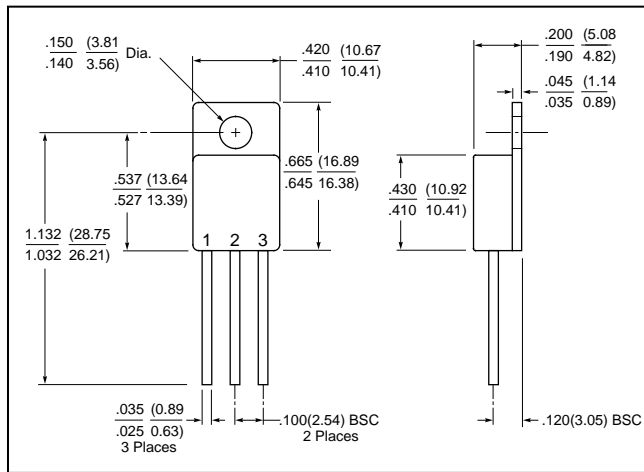
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	100	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form -Common Cathode (P) / Anode (N) -Doubler (D)	6.0 3.0	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, half Sine wave	55	A
Non-Repetitive Avalanche Energy	$E_{AS}$	$T_J = 25\text{ }^\circ\text{C}$ , $I_{AS} = 0.23\text{ A}$ , $L = 130\text{ mH}$	3.5	mJ
Repetitive Avalanche Current	$I_{AR}$	$I_{AS}$ decay linearly to 0 in $1\text{ }\mu\text{s}$ $f$ limited by $T_J$ max $V_A = 1.5V_R$	0.23	A
Maximum Thermal Resistance (Junction to Mounting Surface) (per leg)	$R_{\theta JC}$	-	9.2	$^\circ\text{C/W}$
Max. Junction Temperature	$T_J$	-	-65 to +200	$^\circ\text{C}$
Max. Storage Temperature	$T_{stg}$	-	-65 to +175	$^\circ\text{C}$

**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg)	$V_{F1}$	@ 3A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.94	V
	$V_{F2}$	@ 3A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.78	V
Max. Reverse Current (per leg)	$I_{R1}$	@ $V_R = 100\text{V}$ , Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.07	mA
	$I_{R2}$	@ $V_R = 100\text{V}$ , Pulse, $T_J = 125\text{ }^\circ\text{C}$	1.6	mA
Max. Junction Capacitance (per leg)	$C_T$	@ $V_R = 5\text{V}$ , $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$ , $V_{SIG} = 50\text{mV}$ (p-p)	100	pF

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**Mechanical Dimensions: In Inches / mm**

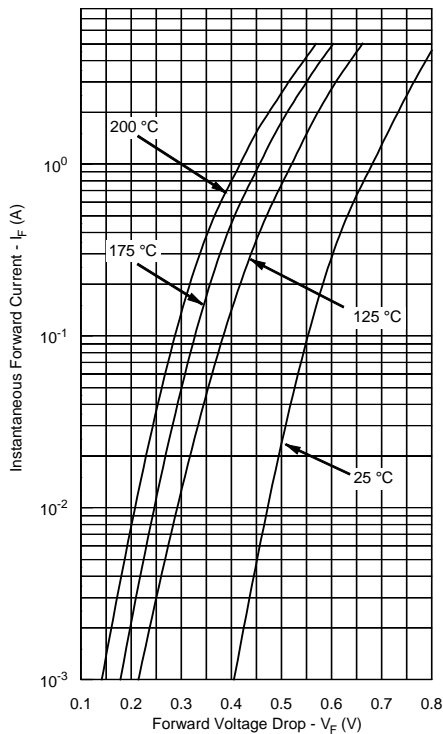


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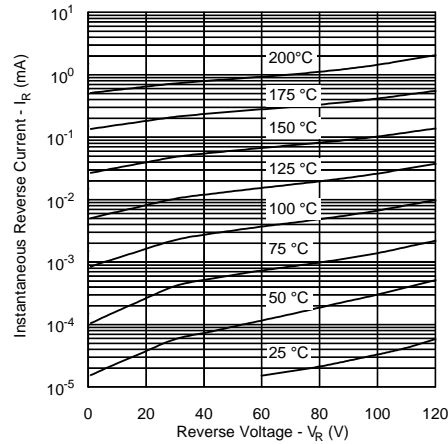
**PINOUT TABLE**

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
DUAL RECTIFIER, DOUBLER (D)	ANODE	ANODE/CATHODE	CATHODE

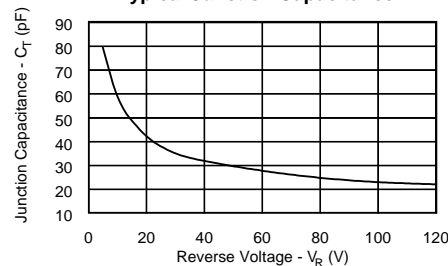
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



**Note:** The  $V_f$  curves shown are for the SD060SC100 unpackaged die only.