

TECHNICAL DATA
DATA SHEET 371, REV. B**SCHOTTKY RECTIFIER**
Very Low Forward Voltage Drop
150°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:

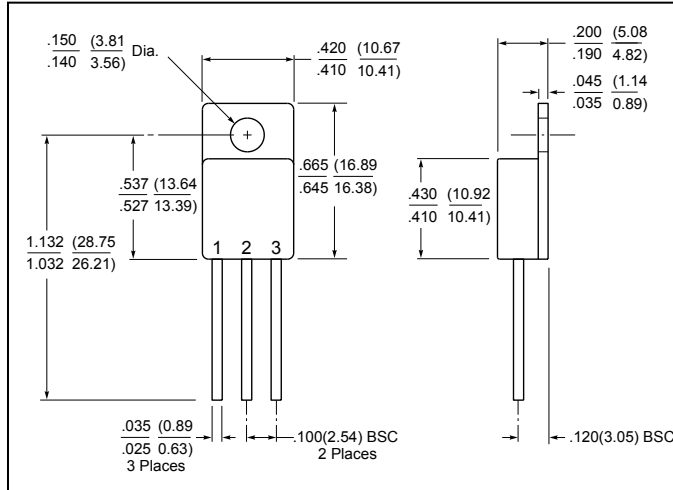
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	100	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form -Common Cathode (P) / Anode (N) -Doubler (D)	6.0 3.0	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine wave	55	A
Non-Repetitive 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)	$R_{\theta JC}$	(per diode)	11.9	$^{\circ}\text{C/W}$
Max. Junction Temperature	T_J	-	-65 to +150	$^{\circ}\text{C}$
Max. Storage Temperature	T_{stg}	-	-65 to +175	$^{\circ}\text{C}$

Electrical Characteristics:

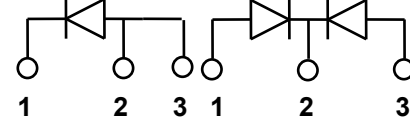
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg)	V_{F1}	@ 3A, Pulse, $T_J = 25\text{ }^{\circ}\text{C}$	0.94	V
	V_{F2}	@ 3A, Pulse, $T_J = 125\text{ }^{\circ}\text{C}$	0.78	V
Max. Reverse Current (per leg)	I_{R1}	@ $V_R = 100\text{V}$, Pulse, $T_J = 25\text{ }^{\circ}\text{C}$	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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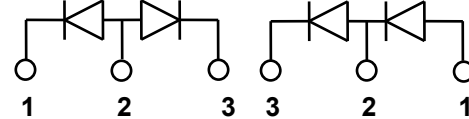
Mechanical Dimensions: In Inches / mm



SINGLE COMMON CATHODE



COMMON ANODE DOUBLER

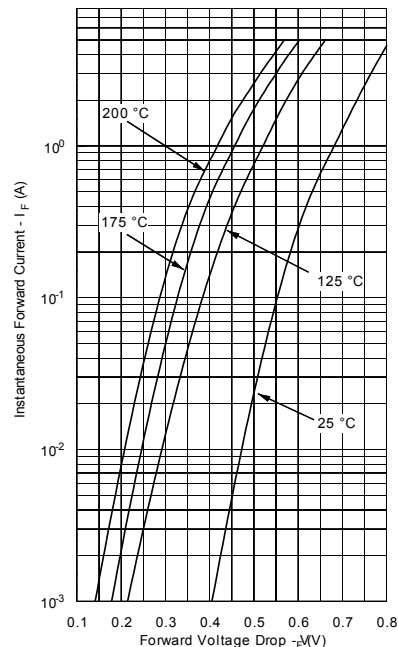


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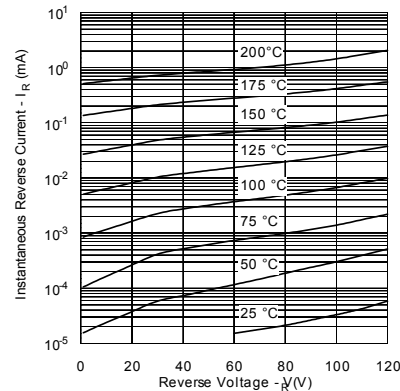
PINOUT TABLE

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

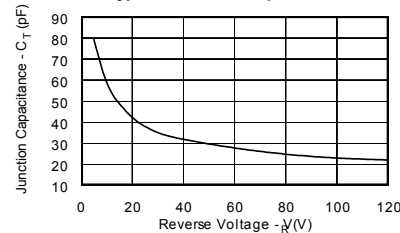
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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

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