

## **FEATURES**

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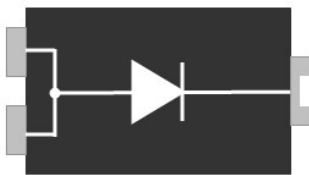
- ✧ High current capability, low forward voltage
- ✧ Excellent high temperature stability
- ✧ Low power loss, and high efficiency
- ✧ High forward surge capability
- ✧ RoHS compliant, and Halogen free

## **ORDERING INFORMATION**

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- ✧ Device:SD10U150SL
- ✧ Package: TO-277
- ✧ Material: Halogen free
- ✧ Packing: Tape & 13" Reel
- ✧ Quantity per reel:  
5,000pcs

## **PIN CONFIGURATION**



## **MACHANICAL DATA**

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- ✧ Case: TO-277 small outline plastic package
- ✧ Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- ✧ Molding Compound Flammability Rating:UL94-0
- ✧ High temperature soldering guaranteed:  
260°C /10second
- ✧ Packed with FRP substrate and epoxy underfilled

## **APPLICATIONS**

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- ✧ Switching mode power supply applications
- ✧ Portable equipment battery applications
- ✧ High frequency rectification
- ✧ DC/DC converter
- ✧ Designed as bypass diodes for solar panels

## **ACKAGE OUTLINE**

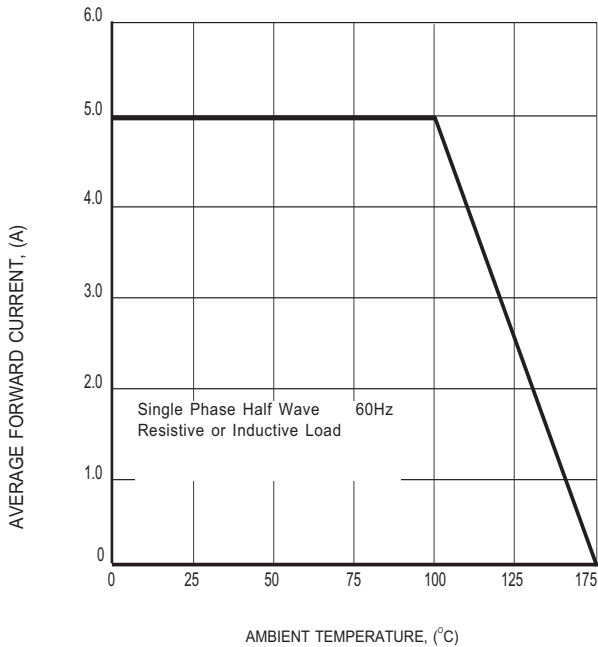


## ABSOLUTE MAXIMUM RATING (T<sub>amb</sub>=25°C, unless otherwise specified)

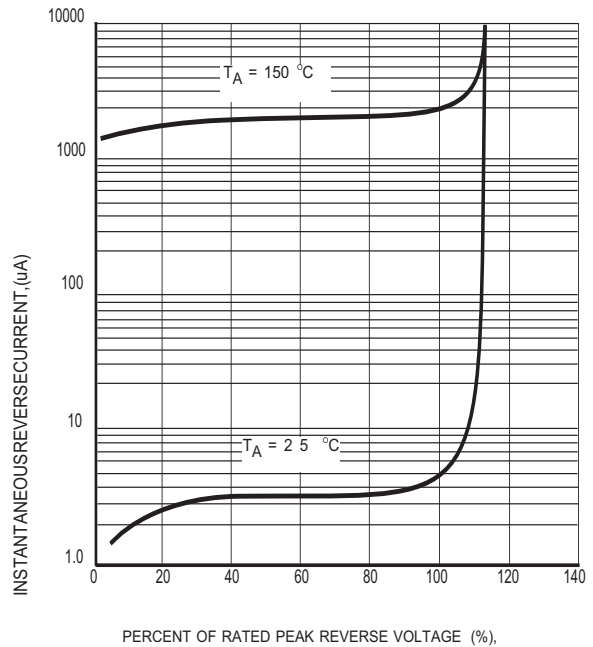
Symbol	Parameter	SD5100	SD5150	SD5200	Units
V <sub>RRM</sub>	Peak Repetitive Reverse Voltage				
V <sub>RWM</sub>	Voltage Working Peak Reverse	100	150	200	V
V <sub>DC</sub>	Voltage DC blocking voltage				
V <sub>R(RMS)</sub>	RMS Rectified Voltage	70	105	140	V
I <sub>F(AV)</sub>	Average Forward Current	5			A
I <sub>FSM</sub>	Peak Forward Surge Current 8.3ms single half sine-wave	150			A
i <sup>2</sup> T	Typical Current Square Time	93.4			A <sup>2</sup> S
R <sub>θJA</sub>	Typical Thermal Resistance	55			°C/W
R <sub>θJL</sub>	Junction to Ambient	17			
T <sub>J</sub> & T <sub>STG</sub>	Junction and Storage Temperature	-55~+175			°C

## ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C, unless otherwise specified)

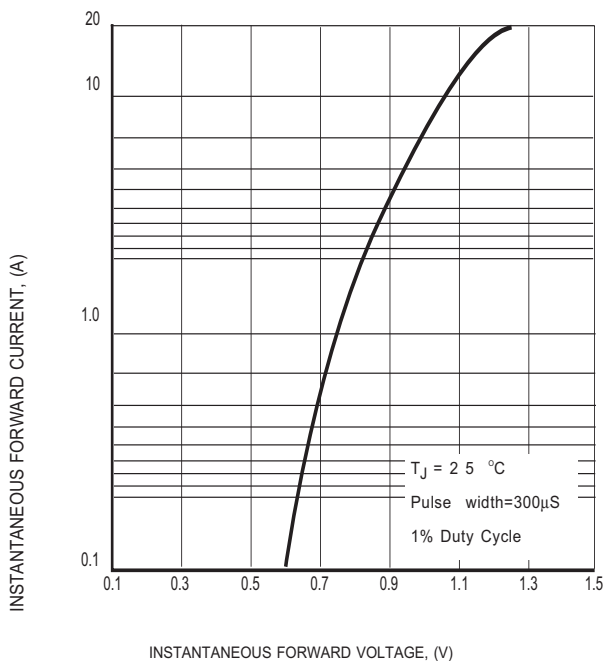
Symbol	Parameter	Test Condition	Max	Units
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 5A @ 25°C	0.88	V
I <sub>R</sub>	Reverse Leakage Current	@ 25°C	5	μA
		@ 125°C	2	mA

**ELECTRICAL CHARACTERISTICS CURVE**


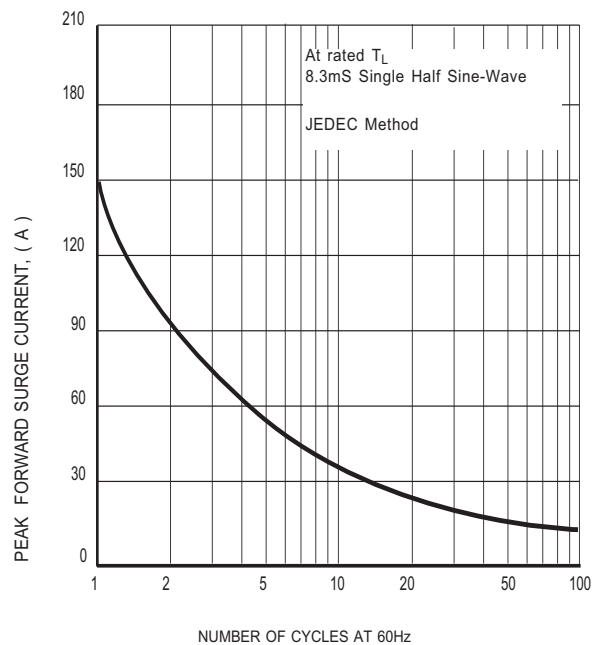
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



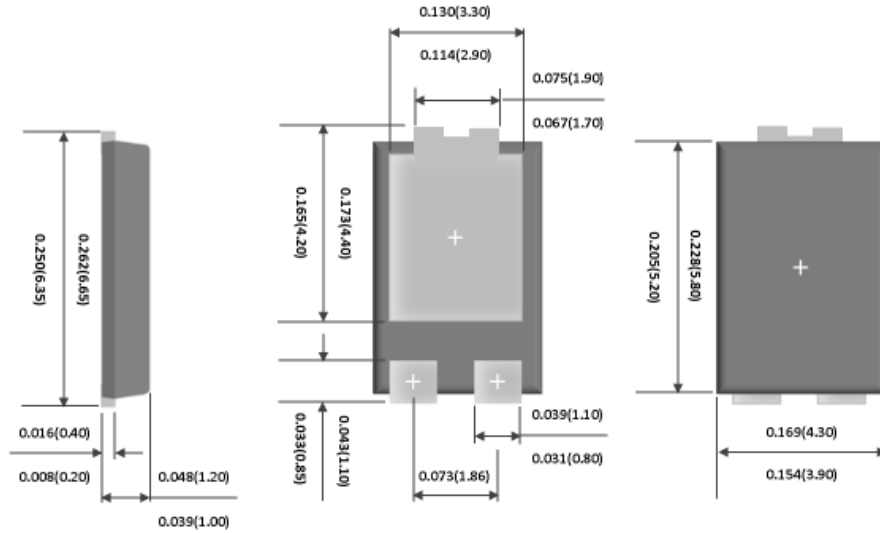
**FIG.2 MAXIMUM REVERSE CHARACTERISTICS**



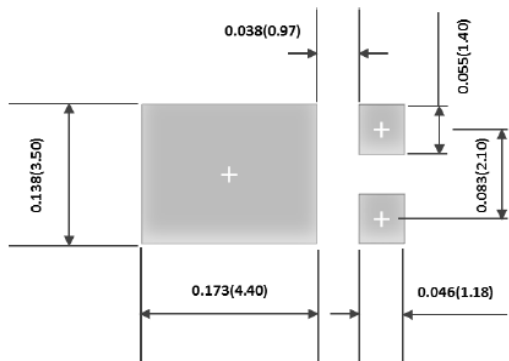
**FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

**TO-277 PACKAGE OUTLINE DIMENSIONS**


unit: mm

**FOOT PRINT RECOMMENDATION**


unit: mm

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG
TO-277	5000/REEL	80000	41X38X36	12.00