

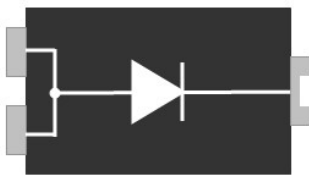
## FEATURES

- ◇ 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

- ◇ Device:SD5U100SL
- ◇ Package: TO-277
- ◇ Material: Halogen free
- ◇ Packing: Tape & 13" Reel
- ◇ Quantity per reel:  
5,000pcs

## PIN CONFIGURATION



## MACHANICAL DATA

- ◇ 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

- ◇ 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 (Tamb=25°C, unless otherwise specified)**

Symbol	Parameter	Value	Units
V <sub>RRM</sub> V <sub>RWM</sub> V <sub>DC</sub>	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC blocking voltage	100	V
V <sub>R(RMS)</sub>	RMS Rectified Voltage	70	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
R <sub>θJA</sub> R <sub>θJL</sub>	Typical Thermal Resistance Junctionto Ambient	60 3	°C/W
T <sub>J</sub> & T <sub>STG</sub>	Junction and Storage Temperature	-55~+150	°C

**ELECTRICAL CHARACTERISTICS (Tamb=25°C, unless otherwise specified)**

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 5A @ 25°C		0.58	0.62	V
I <sub>R</sub>	Reverse Leakage Current	@ 25°C		10	50	μA
		@ 125°C		8.0	20	mA
C <sub>J</sub>	Typical junction capacitance	4V,1MHz			370	pF

## ELECTRICAL CHARACTERISTICS CURVE

Figure 1: Forward Current vs. Forward Voltage

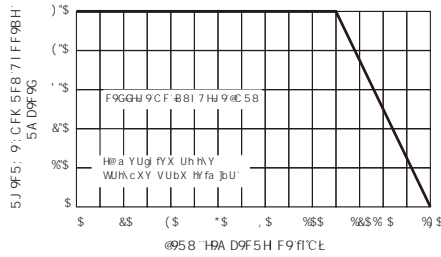


Figure 2: Peak Forward Surge Current vs. Number of Cycles

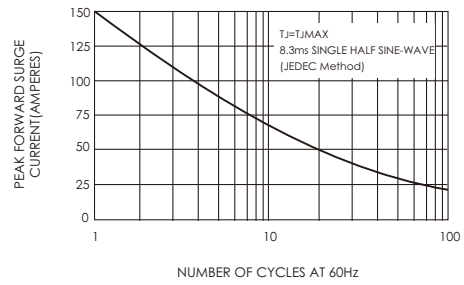


Figure 3: Instantaneous Forward Current vs. Duty Cycle

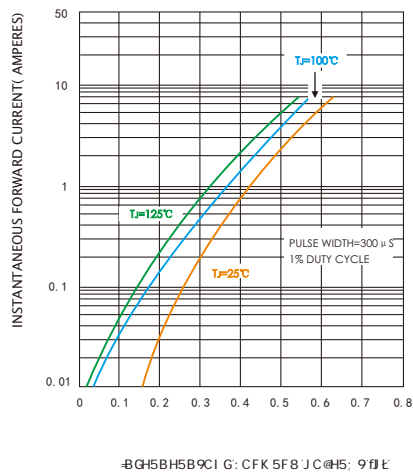


Figure 4: Instantaneous Reverse Current vs. Percent of Rated Peak Reverse Voltage

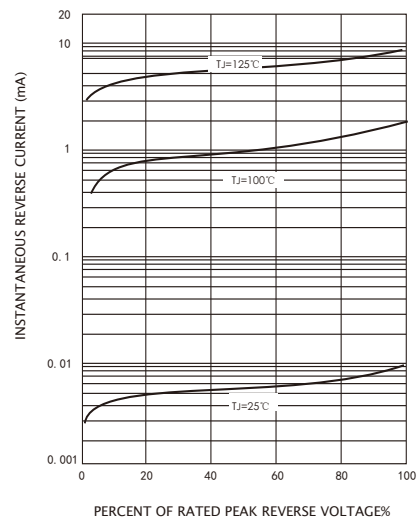
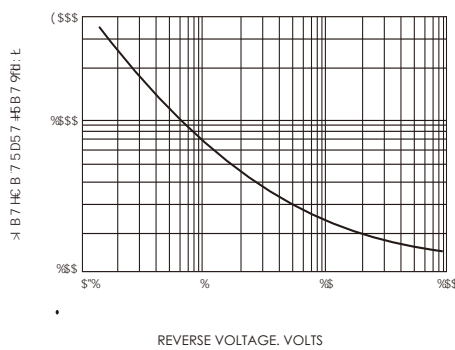
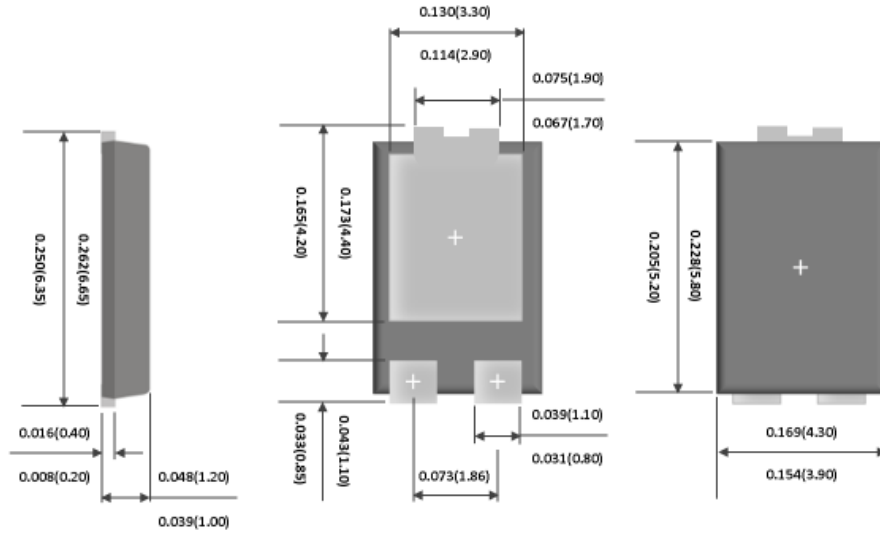


Figure 5: Reverse Voltage vs. Reverse Current

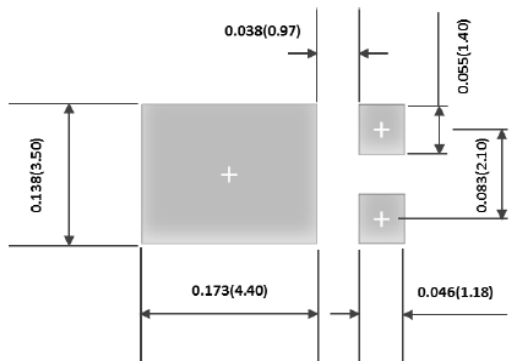


## TO-277 PACKAGE OUTLINE DIMENSIONS



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