

## 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: SD15U50SL
- ✧ Package: TO-277
- ✧ Marking: 15U50
- ✧ Material: Halogen free
- ✧ Packing: Tape & 13" Reel

## 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

## PACKAGE OUTLINE



## ABSOLUTE MAXIMUM RATING (Tamb=25°C, unless otherwise specified)

Symbol	Parameter	Value	Units
$V_{RRM}$	Repetitive Peak Reverse Voltage	50	V
$I_{F(AV)}$	Average Forward Current	15	A
$I_{FSM}$	Peak Forward Surge Current, 8.3ms single half sine-wave	275	A
$T_J$ & $T_{STG}$	Junction and Storage Temperature	-50~+150	°C

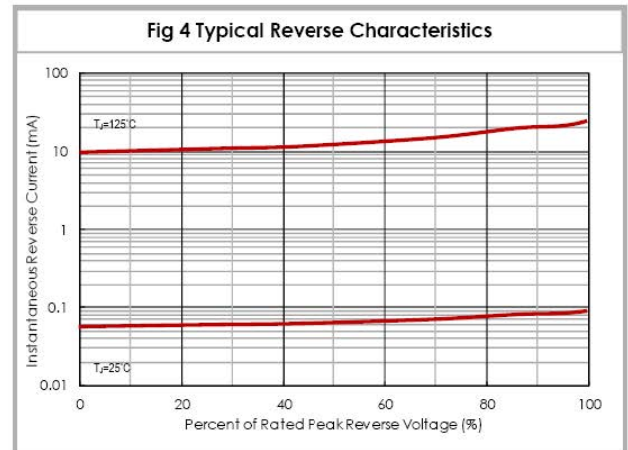
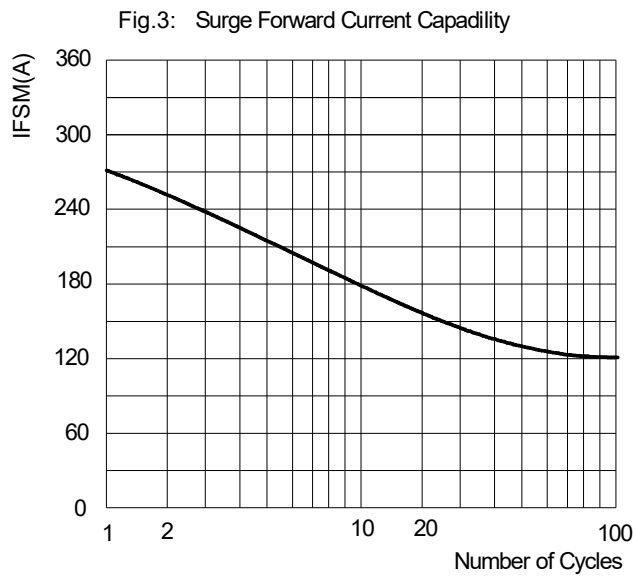
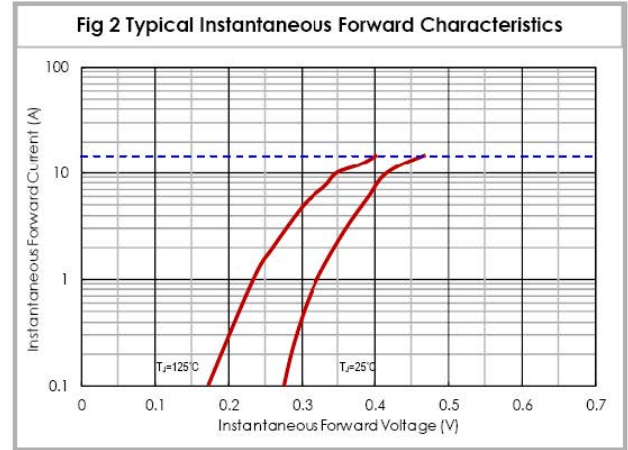
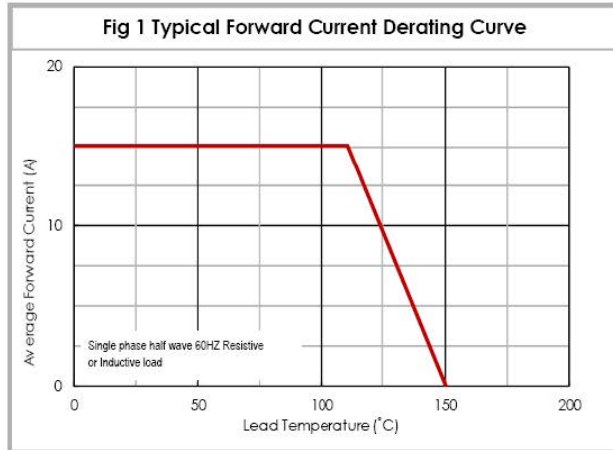
**ELECTRICAL CHARACTERISTICS (Tamb=25°C, unless otherwise specified)**

Parameter	Symbol	SD15U50SL	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC blocking voltage	$V_{DC}$		
RMS Rectified Voltage	$V_{R(RMS)}$	35	V
Average Rectified Output Current (Note1)	$I_F(AV)$	15	A
Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC Method) (Note2)	$I_{FSM}$	275	A
$I^2t$ Rating for Fusing (t < 8.3ms)	$I^2t$	313.84	A <sup>2</sup> s
Forward Voltage Drop $T_A = 25^\circ C$ @ $I_F = 15A$	$V_{FM}$	0.45	V
Peak Reverse Current $T_A = 25^\circ C$ At Rated DC Blocking Voltage $T_A = 100^\circ C$	$I_R$	0.3 15	mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ $R_{\theta JL}$	31 15	°C/W
Operating junction temperature range	$T_J$	-55 to +150	°C
storage temperature range	$T_{STG}$	-55 to +150	°C

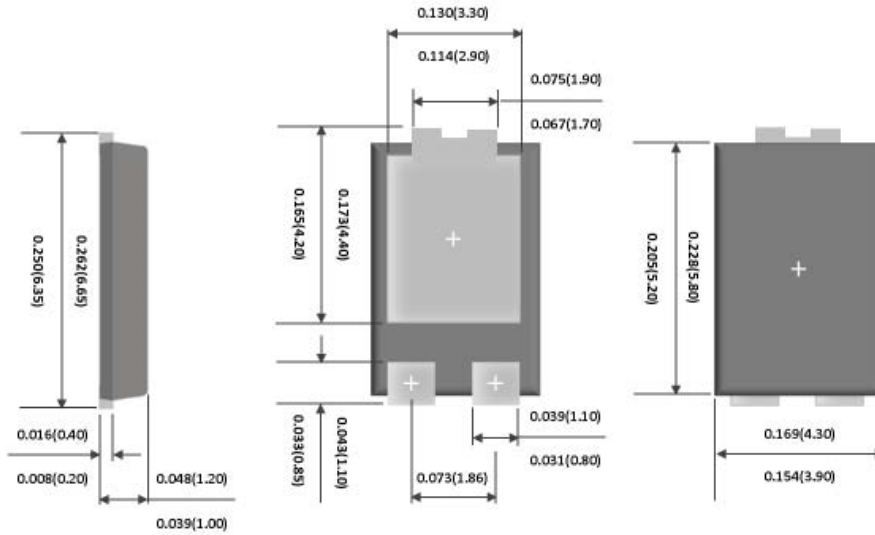
Note:1. Valid Provided that are kept at ambient temperature at a distance of 9.5mm from the case.

2. Fr-4pcb.2oz.Copper,minimum recommend pad layout .18.8mm×14.4.Anode pad dimensions 5.6mm×14.4mm.

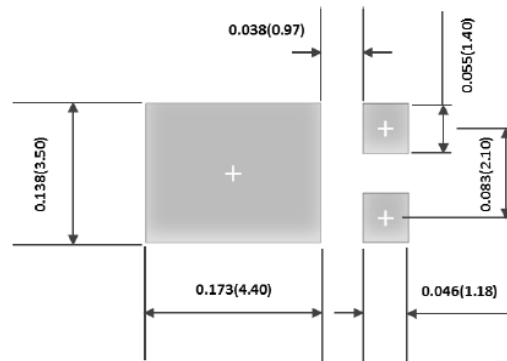
## ELECTRICAL CHARACTERISTICS CURVE



## TO-277 PACKAGE OUTLINE DIMENSIONS



## FOOT PRINT RECOMMENDATION



unit: mm

## PACKAGE INFORMATION

Device	Package	Shipping
SD15U50SL	TO-277	5000/Tape&Reel