SD10U50SL

10A/50V Low VF Schottky Rectifier

RoHS COMPLIANT

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

MACHANICAL DATA

- ✧Case: TO-277B 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

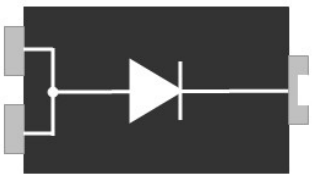
ORDERING INFORMATION

- ✧ Device:SD10U50SL
- ✧ Package: TO-277B
- ✧ Material: Halogen free
- ✧ Packing: Tape & 13'' Reel
- ✧ Quantity per reel: 5,000pcs

APPLICATIONS

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

PIN CONFIGURATION



ACKAGE OUTLINE



SD10U50SL

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ABSOLUTE MAXIMUM RATING (Tamb=25℃, unless otherwise specified)

Symbol	Parameter	Value	Units
V_{RRM} V_{RWM} V_{DC}	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC blocking voltage	50	V
$V_{R(RMS)}$	RMS Rectified Voltage	35	V
$I_{F(AV)}$	Average Forward Current	10	A
I_{FSM}	Peak Forward Surge Current, 8.3ms single half sine-wave	275	A
$R_{\theta JA}$ $R_{\theta JL}$	Typical Thermal Resistance Junctionto Ambient	80 15	℃/W
T_J & T_{STG}	Junction and Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25℃, unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_F	Forward Voltage	I_F = 10A @ 25°C		0.45		V
I_R	Reverse Leakage Current	@ 25°C		0.3		mA
		@ 100°C		15		mA

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ELECTRICAL CHARACTERISTICS CURVE

Fig.1 - Forward Current Derating Curve

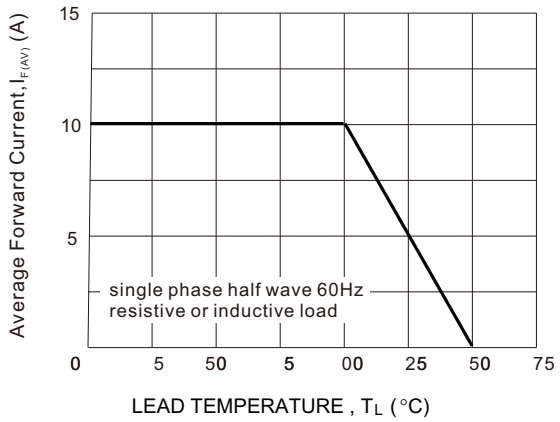


Fig.2 :Instantaneous Forward Voltage

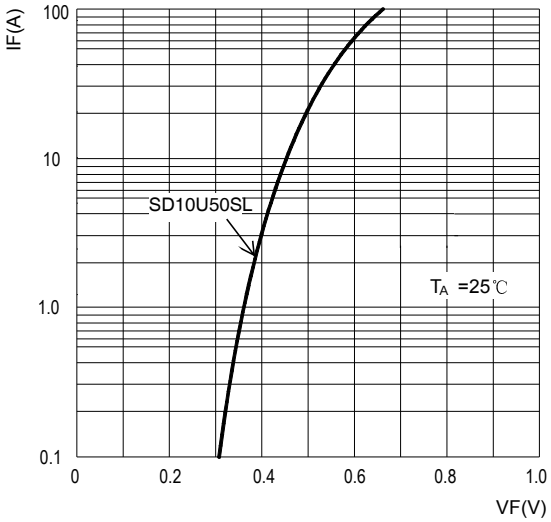


Fig.3: Surge Forward Current Capadility

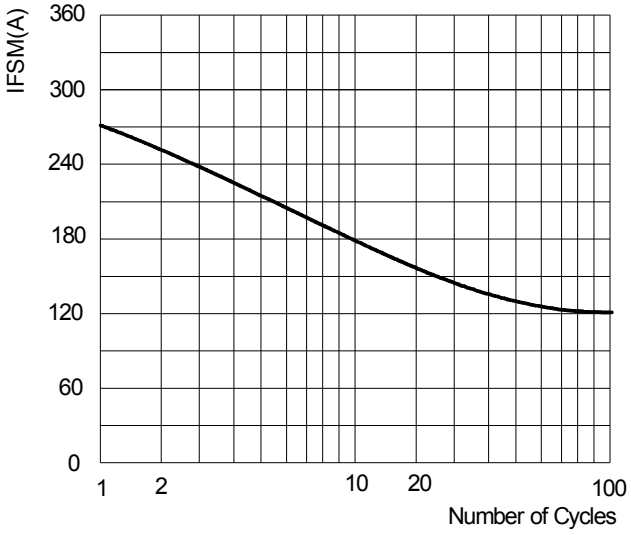
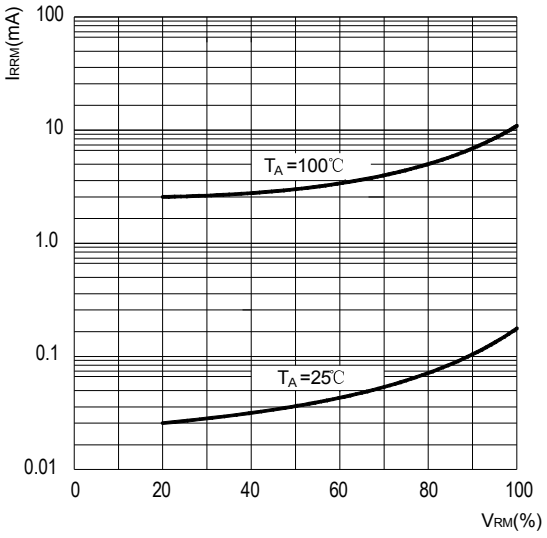


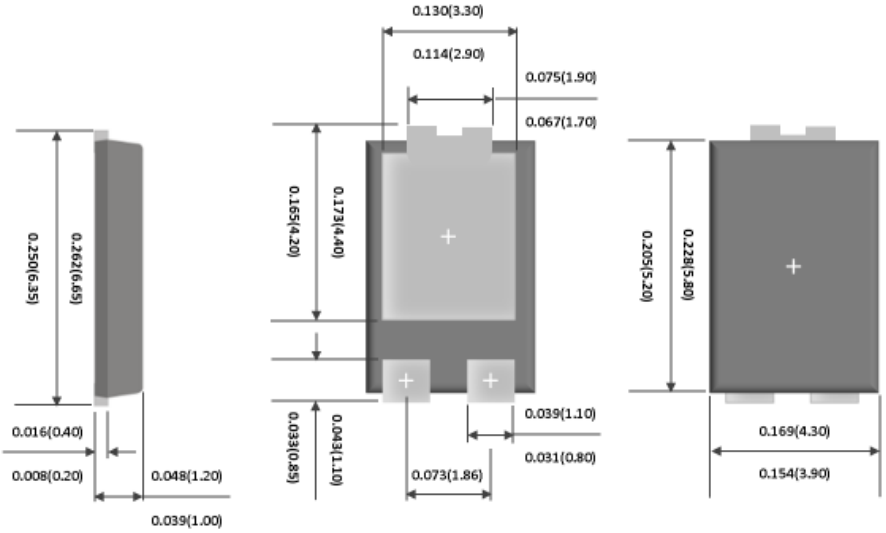
Fig.4: Typical Reverse Characteristics



SD10U50SL

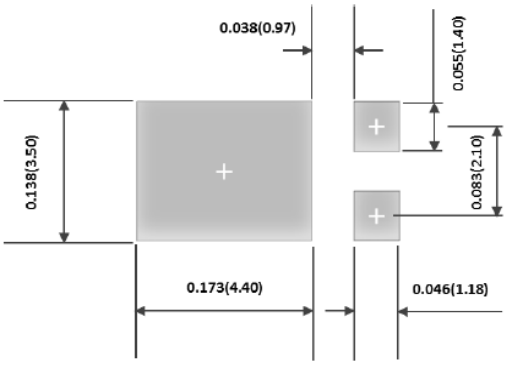
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TO-277B PACKAGE OUTLINE DIMENSIONS



unit: mm

FOOT PRINT RECOMMENDATION



unit: mm