

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: SD1550SL
- ✧ Package: TO-277B
- ✧ Material: Halogen free
- ✧ Packing: Tape & 13" Reel
- ✧ Quantity per reel: 3,000pcs or 5,000pcs

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

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



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	320	A
T_J & T_{STG}	Junction and Storage Temperature	-50~+150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C, unless otherwise specified)						
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_F	Forward Voltage	$I_F = 3A @ 25^\circ C$		0.33	0.36	V
		$I_F = 10A @ 25^\circ C$		0.41	0.46	V
		$I_F = 15A @ 25^\circ C$		0.46	0.51	V
		$I_F = 3A @ 125^\circ C$		0.24		V
		$I_F = 10A @ 125^\circ C$		0.37		V
		$I_F = 15A @ 125^\circ C$		0.44		V
V_R	Reverse Breakdown Voltage	$I_R = 0.5mA$	50			V
I_R	Reverse Leakage Current	$V_R = 50V @ 25^\circ C$			0.280	mA
		$V_R = 50V @ 125^\circ C$			50	mA
C_J	Junction Capacitance	f=1MHz, $V_R=4V$		850		pF
$R_{th(JA)}$	Thermal Resistance Junction to Ambient (note 1)			94		°C/W
$R_{th(JL)}$	Thermal Resistance Junction to Lead (note 1)			10		°C/W

Note 1: Units mounted on recommended P.C.B. 1 oz. pad layout

ELECTRICAL CHARACTERISTICS CURVE

Fig 1 Typical Forward Current Derating Curve

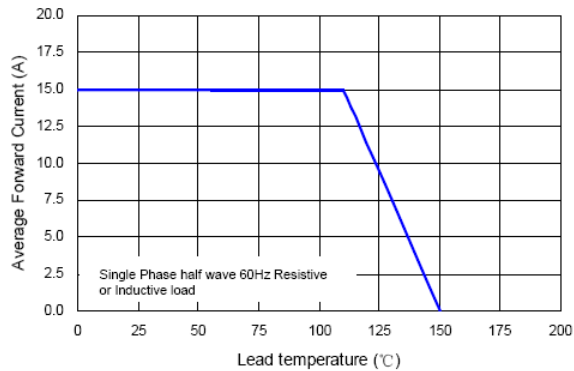


Fig 2 Typical Instantaneous Forward Characteristics

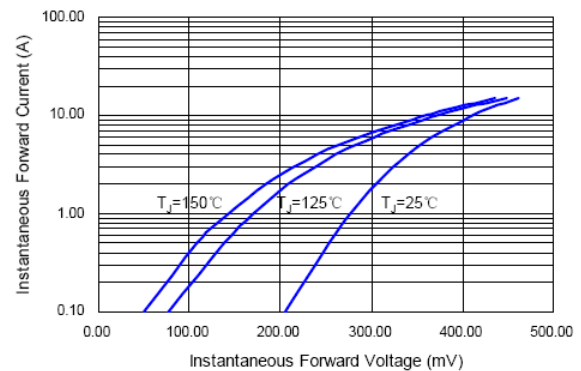


Fig 3 Max. Non-repetitive Forward Surge Current

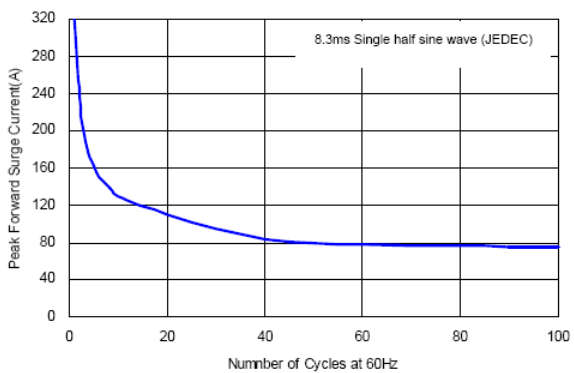


Fig 4 Typical Reverse Characteristics

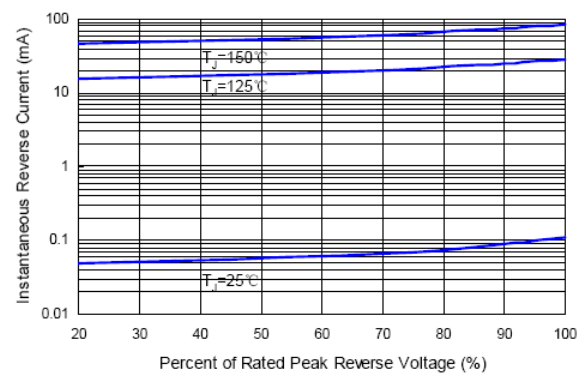
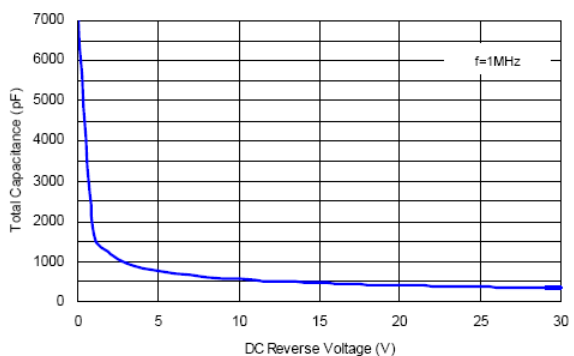
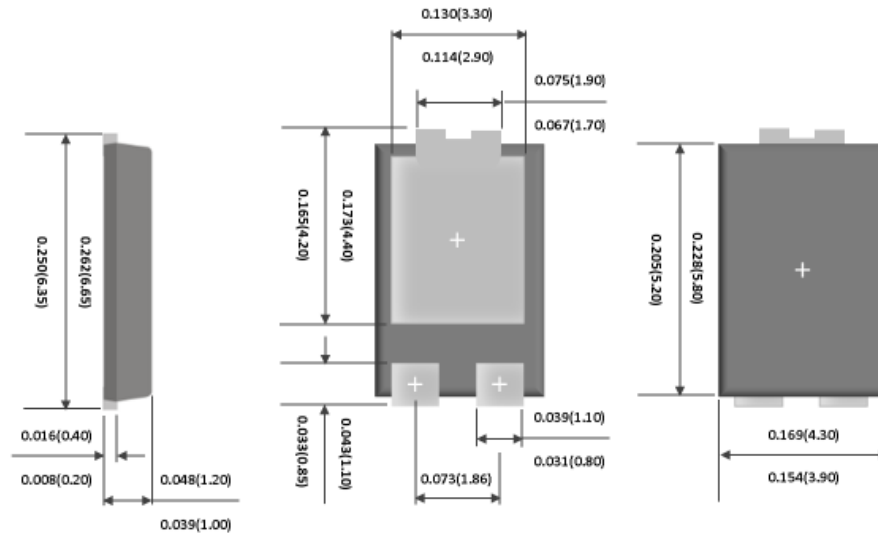


Fig 5 Total Capacitance vs. Reverse Voltage

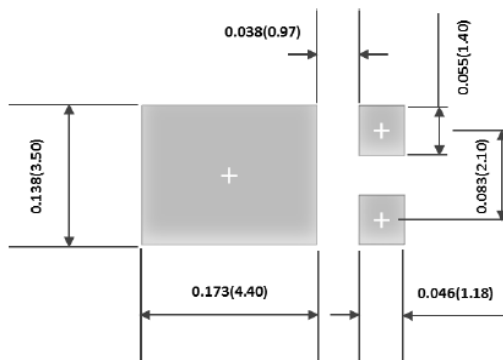


TO-277B PACKAGE OUTLINE DIMENSIONS



unit: mm

FOOT PRINT RECOMMENDATION



unit: mm