

### 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: GSD1060SL
- ✧ Package: TO-277B
- ✧ Marking: 1060
- ✧ 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



### PACKAGE OUTLINE



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

Symbol	Parameter	Value	Units
$V_{RRM}$	Repetitive Peak Reverse Voltage	60	V
$I_{F(AV)}$	Average Forward Current	10	A
$I_{FSM}$	Peak Forward Surge Current, 8.3ms single half sine-wave	250	A
$T_J$ & $T_{STG}$	Junction and Storage Temperature	-40~+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> = 3A @ 25°C		0.36		V
		I <sub>F</sub> = 5A @ 25°C		0.40	0.46	V
		I <sub>F</sub> = 10A @ 25°C		0.47	0.53	V
		I <sub>F</sub> = 3A @ 125°C		0.28		V
		I <sub>F</sub> = 5A @ 125°C		0.34	0.40	V
		I <sub>F</sub> = 10A @ 125°C		0.45	0.50	V
I <sub>R</sub>	Reverse Leakage Current	V <sub>R</sub> = 60V @ 25°C			0.3	mA
		V <sub>R</sub> = 60V @ 125°C			30	mA
C <sub>J</sub>	Junction Capacitance	f=1MHz, V <sub>R</sub> =4V		550		pF
R <sub>th(JA)</sub>	Thermal Resistance (note 1)			31		°C/W

Note 1: Polyimide PCB, 2oz. copper. Cathode pad dimensions 18.8x14.4mm. Anode pad dimensions 5.6x14.4mm

### ELECTRICAL CHARACTERISTICS CURVE

Fig 1 Typical Forward Current Derating Curve

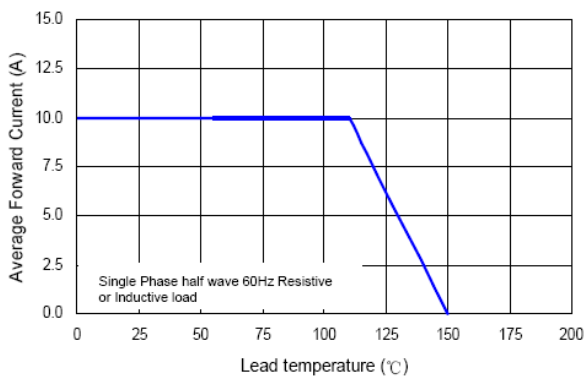


Fig 2 Typical Instantaneous Forward Characteristics

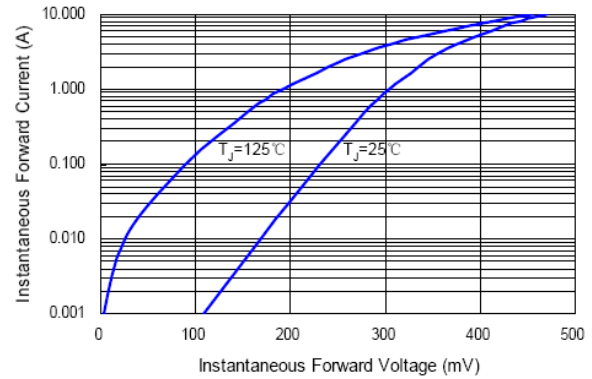


Fig 3 Max. Non-repetitive Forward Surge Current

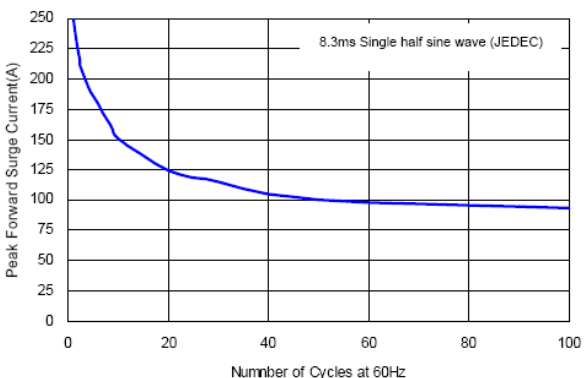
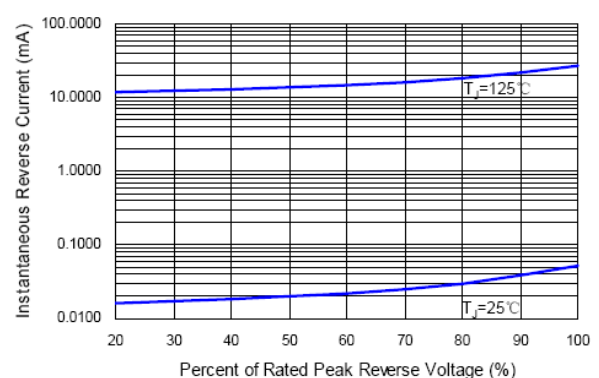
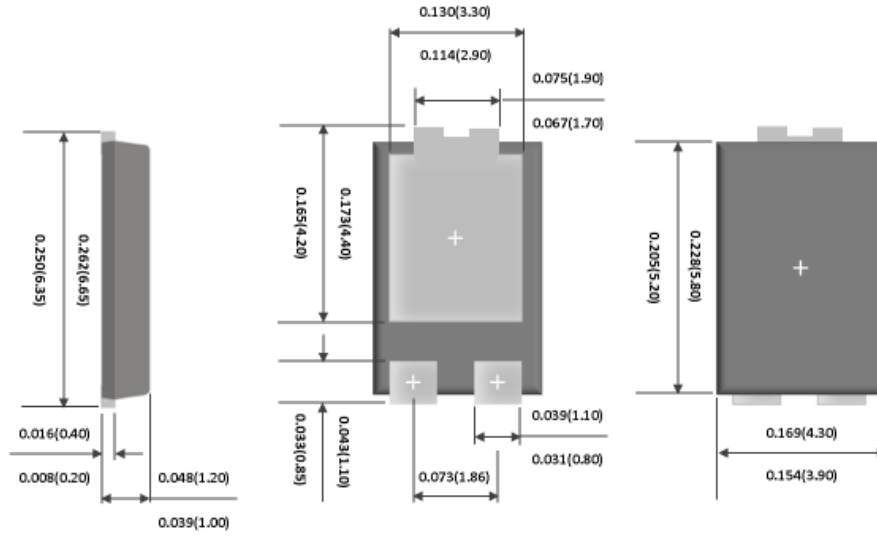


Fig 4 Typical Reverse Characteristics

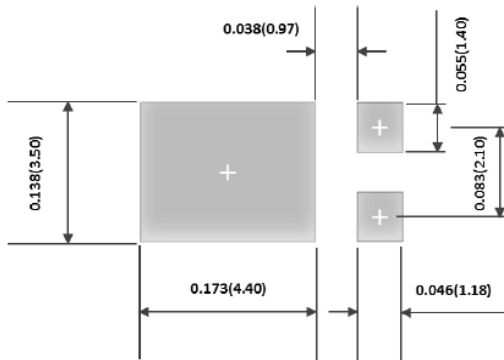


## TO-277B PACKAGE OUTLINE DIMENSIONS



unit: mm

## FOOT PRINT RECOMMENDATION



unit: mm

## MARKING CODE



1060	YYYY	XXX
Device name	Trace code	Date code
		XXX
		XX=month(01,02,03,04,...,11,12)
		X=year(2=2012,3=2013,4=2014...)