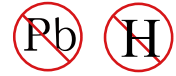




## 10A SURFACE MOUNT LOW VF SCHOTTKY BARRIER RECTIFIER

**Features**

- High current capability
- Ultra Low Forward Voltage Drop
- Low reverse current
- Low thermal resistance
- Excellent high temperature stability
- Low power loss and high efficiency
- High forward surge capability
- Low thermal resistance

**Mechanical Data**

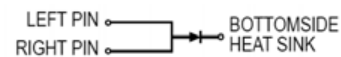
- TO-277 small outline plastic package
- Matte tin plated, solderable per MIL-STD-750, Method 2026, J-STD-002 and JESD 22-B102
- Molding Compound Flammability Rating:UL94-V0 Low power loss and high efficiency
- High temperature soldering guaranteed: 260°C 10second
- Packed with FRP substrate and epoxy underfilled
- Package Designed for Optimal automated circuit board assembly

**Applications**

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

**Ordering Information**

- Device: YS10U45SL
- Package: TO-277
- Marking: 10U45SL
- Material: Halogen free
- Packing: Tape & 13" Reel
- Quantity per reel: 5,000pcs

**Pin Configuration****Maximum Ratings** @ T<sub>A</sub> = 25°C unless otherwise specified

Symbol	Parameter	Value	Units
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	45	V
I <sub>F(AV)</sub>	Average Forward Current	10	A
I <sub>FSM</sub>	Peak Forward Surge Current, 8.3ms single half sine-wave	280	A
T <sub>J</sub> & T <sub>STG</sub>	Junction and Storage Temperature	-40~+150	°C

**Electrical Characteristics** @ T<sub>A</sub> = 25°C unless otherwise specified

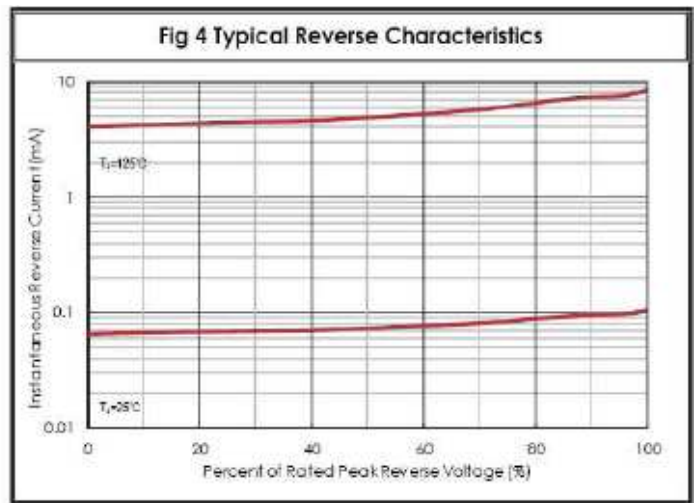
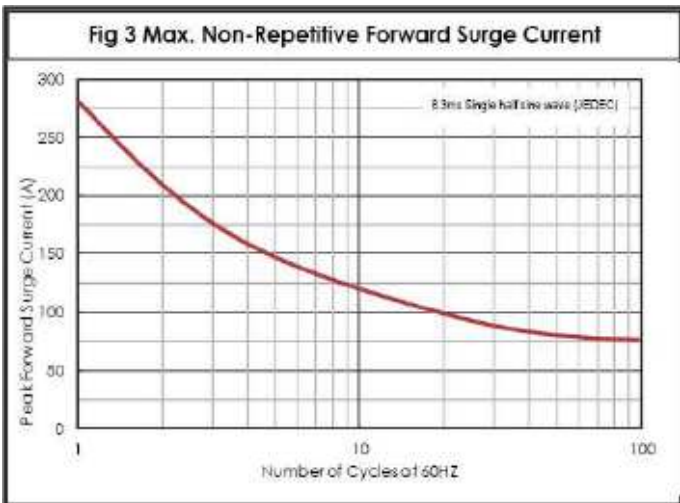
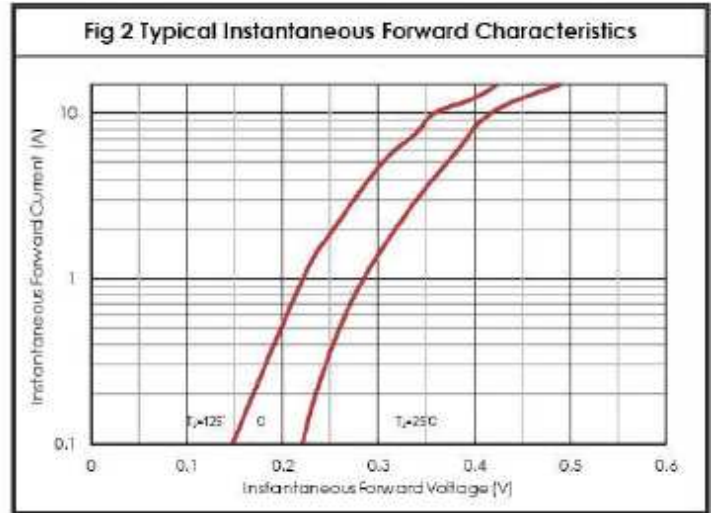
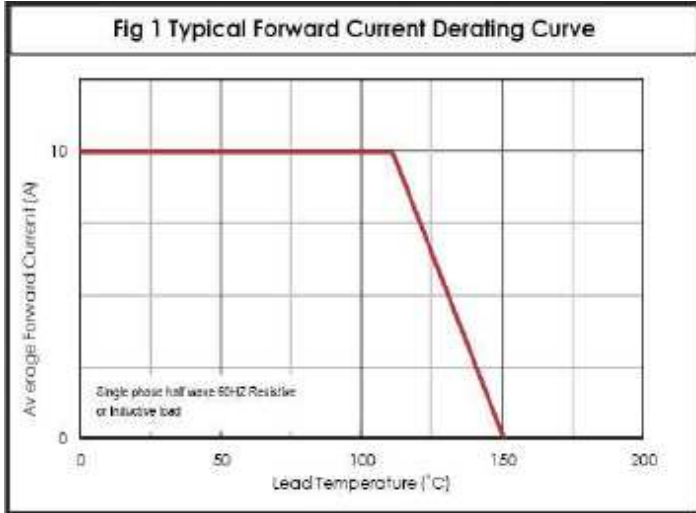
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 3A		0.34	0.36	V
		I <sub>F</sub> = 8A		0.40	0.43	V
		I <sub>F</sub> = 10A		0.42	0.44	V
I <sub>R</sub>	Reverse Leakage Current	V <sub>R</sub> = 45V			0.3	mA
C <sub>J</sub>	Junction Capacitance	f=1MHz, V <sub>R</sub> =4V		600		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

# DEVICE CHARACTERISTICS

## YS10U45SL

Electrical characteristic curves



# PACKAGE OUTLINE AND DIMENSIONS

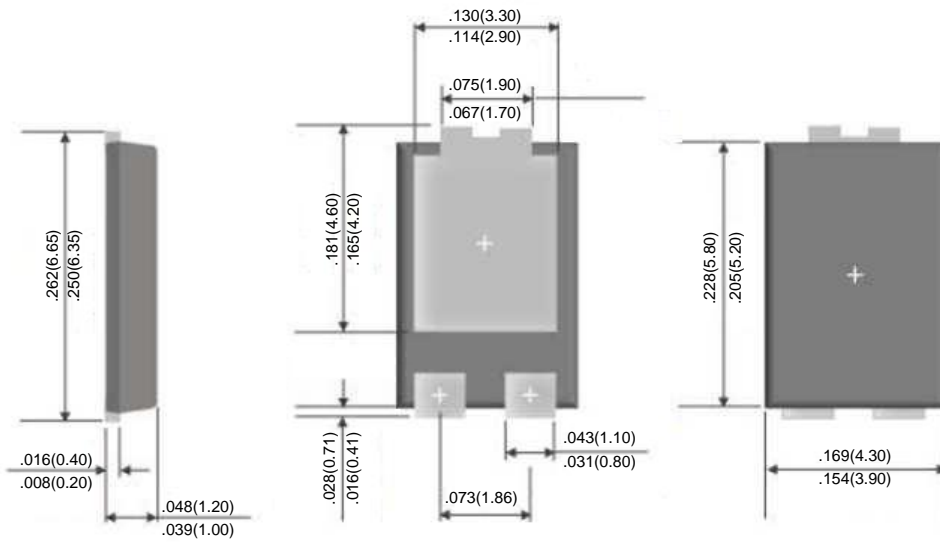
## YS10U45SL

### PACKAGE AND SUGGESTED PAD LAYOUT DIMENSION

**TO-277**

Outline drawing and Dimension

Unit:inch(mm)



FOOT PRINT RECOMMENDATION	MARKING CODE						
<p style="text-align: center;">unit: mm</p>	<table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 2px;">YS</td> <td style="padding: 2px;">10U45SL</td> <td style="padding: 2px;">XXXX</td> </tr> <tr> <td style="padding: 2px;">Logo</td> <td style="padding: 2px;">Device name</td> <td style="padding: 2px;">Date code</td> </tr> </table>	YS	10U45SL	XXXX	Logo	Device name	Date code
YS	10U45SL	XXXX					
Logo	Device name	Date code					