



YEA SHIN TECHNOLOGY CO., LTD

YS10L100SL

## 10.0A Surface Mount Schottky Barrier Rectifiers

**Features**

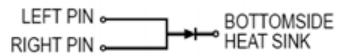
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Halogen-free part.
- Lead free in compliance with EU ROHS.

**Applications**

- Switching mode power supply applications
- Portable equipment battery applications
- High frequency rectification
- DC/DC converter
- Polarity protection applications

**Mechanical Data**

- Case : TO-277, molded plastic
- Expoy : UL-94-V0 rated flame retardant.
- Lead : Solder plated, solderable per MIL-STD-750, Method 2026.
- Mounting Position : Any.
- Weight : Approximated 0.09 grams.

**Pin Configuration****Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$  unless otherwise specified**

Parameter	Conditions	Symbol	YS10L100SL		UNIT
Working Peak Reverse Voltage		$V_{RWM}$	100		V
Forward Rectified Current		$I_o$	10		A
Forward Surge Current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	200		A
Peak Repetitive Reverse Surge Current	Pulse width 2us, 1000Hz, square wave at $T_A 25^\circ\text{C}$ , 10 cycles	$I_{RRM}$	1		A
Thermal Resistance	Junction to case	$R_{\theta JC}$	5		$^\circ\text{C}/\text{W}$
	Junction to ambient	$R_{\theta JA}$	60		$^\circ\text{C}/\text{W}$
Storage Temperature		$T_{STG}$	-55 ~ +150		$^\circ\text{C}$
Operating Junction Temperature		$T_J$	-55 ~ +150		$^\circ\text{C}$

**■ Electrical Characteristics**

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward Voltage Drop	$I_F = 3\text{A}, T_J = 25^\circ\text{C}$	$V_F$		475		mV
	$I_F = 10\text{A}, T_J = 25^\circ\text{C}$			655	700	
	$I_F = 10\text{A}, T_J = 125^\circ\text{C}$			595		
Reverse Current	$V_R = 100\text{V}, T_J = 25^\circ\text{C}$	$I_R$		10	100	uA
	$V_R = 100\text{V}, T_J = 125^\circ\text{C}$			8	30	mA
Reverse Breakdown Voltage	$I_R = 0.1\text{mA}, T_J = 25^\circ\text{C}$	$V_{BR}$	100			V

# DEVICE CHARACTERISTICS

## YS10L100SL

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Fig. 1 - Forward Characteristics

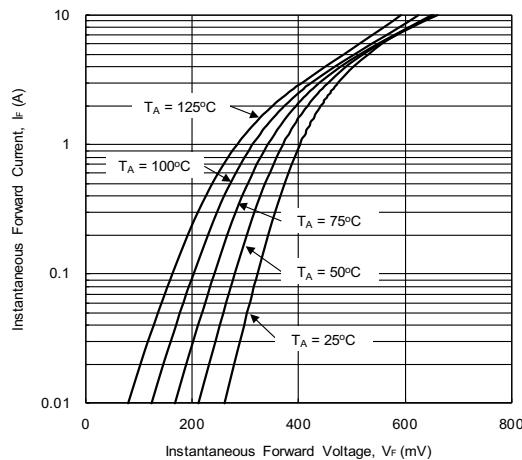


Fig. 2 - Reverse Characteristics

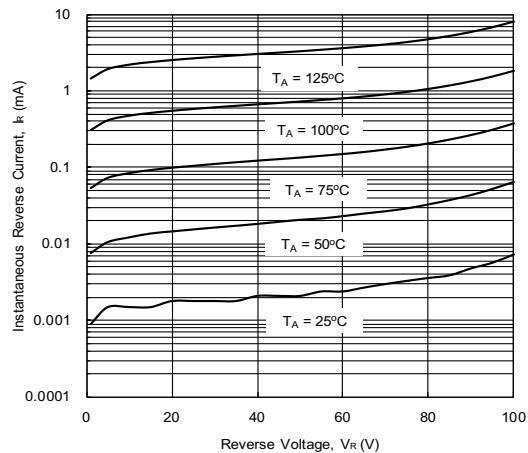


Fig. 3 - Forward Power Dissipation

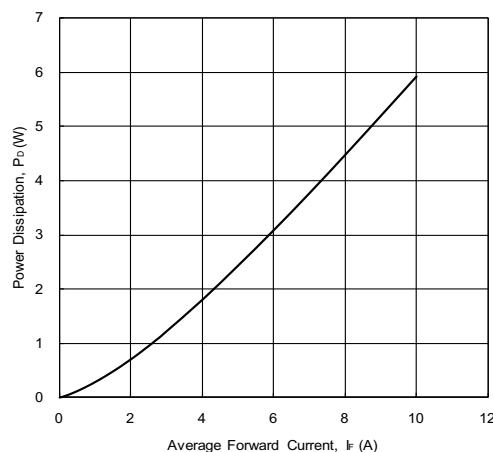


Fig. 4 - Forward Current Derating Curve

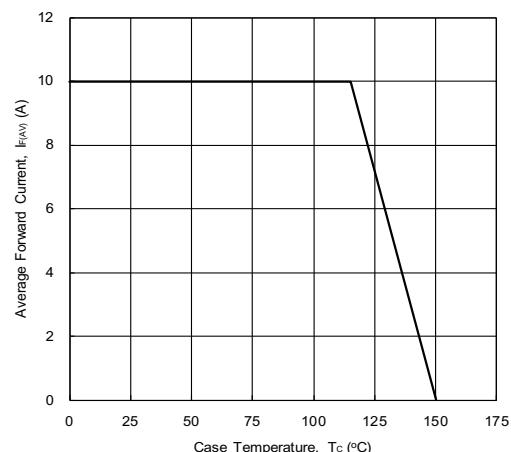
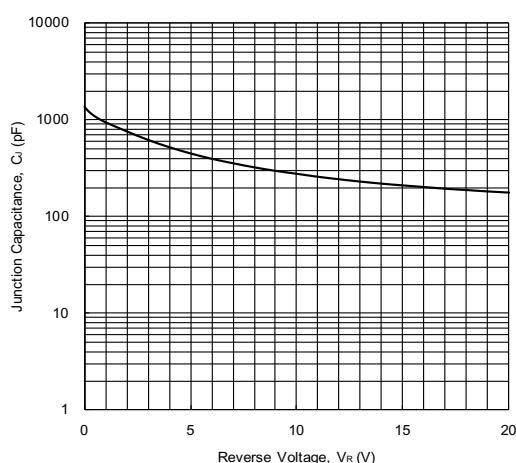


Fig. 5 - Junction Capacitance



# PACKAGE OUTLINE AND DIMENSIONS

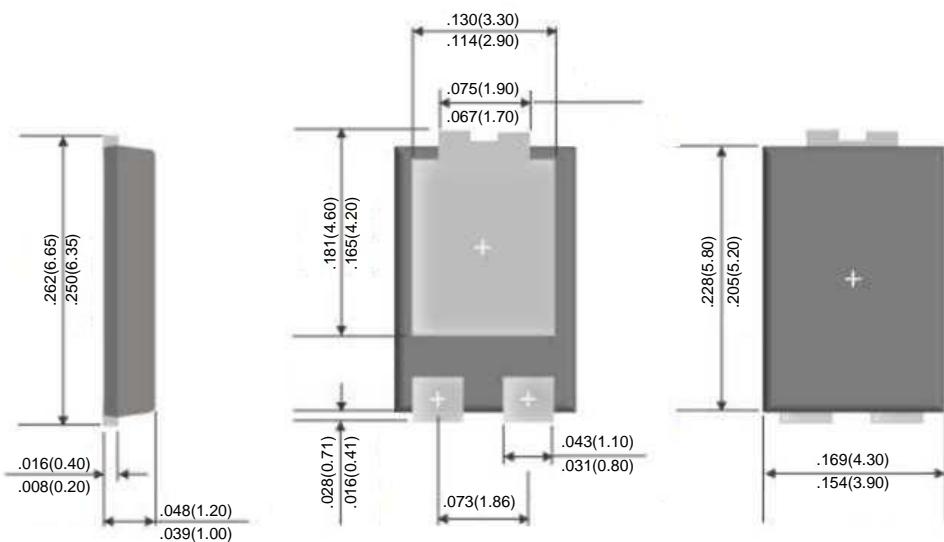
## YS10L100SL

### PACKAGE AND SUGGESTED PAD LAYOUT DIMENSION

TO-277

Outline drawing and Dimension

unit: inch (mm)



FOOT PRINT RECOMMENDATION	MARKING CODE						
<p>The diagram shows a recommended footprint for the package. It features a central pad with a width of 0.038(0.97) and a height of 0.138(3.50). To its right are two side pads, each with a width of 0.046(1.18) and a height of 0.055(1.40). The distance between the center of the central pad and the center of a side pad is 0.173(4.40). The distance between the bottom edge of the central pad and the bottom edge of a side pad is 0.083(2.10). The entire footprint is labeled "unit: mm".</p>	<p>The marking code consists of a logo followed by the text "10L100SL" and "XXXX" in a box. Below this box is a table:</p> <table border="1"><tr><td>YS</td><td>5L100SL</td><td>XXXX</td></tr><tr><td>Logo</td><td>Device name</td><td>Date Code</td></tr></table>	YS	5L100SL	XXXX	Logo	Device name	Date Code
YS	5L100SL	XXXX					
Logo	Device name	Date Code					