



YEA SHIN TECHNOLOGY CO., LTD

YS5L100SL

## 5.0A Surface Mount Schottky Barrier Rectifiers

**Features**

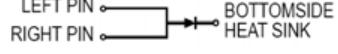
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Lead free in compliance with EU ROHS.

**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 0.093 grams.

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

Parameter	Conditions	Symbol	YS5L100SL		UNIT
Working peak reverse voltage		$V_{RWM}$	100		V
Forward rectified current		$I_O$	5		A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	100		A
Peak Repetitive Reverse Surge Current	Pulse width 2us, 1000Hz, square wave at $T_A 25^\circ C$ , 10 cycles	$I_{RRM}$	1		A
Thermal resistance	Junction to case	$R_{BJC}$	5	°C/W	
	Junction to ambient	$R_{BJA}$	60		
Storage temperature		$T_{STG}$	-55 ~ +150	°C	
Operating Junction temperature		$T_J$	-55 ~ +150		

**■ Electrical Characteristics**

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage drop	$I_F = 3A, T_J = 25^\circ C$	$V_F$		525		mV
	$I_F = 5A, T_J = 25^\circ C$			610	670	
	$I_F = 5A, T_J = 125^\circ C$			550		
Reverse current	$V_R = 100V, T_J = 25^\circ C$	$I_R$		0.005	0.1	mA
	$V_R = 100V, T_J = 125^\circ C$			7	30	
Reverse breakdown voltage	$I_R = 0.1mA, T_J = 25^\circ C$	$V_{(BR)R}$	100			V

# DEVICE CHARACTERISTICS

## YS5L100SL

Fig. 1 - Forward Characteristics

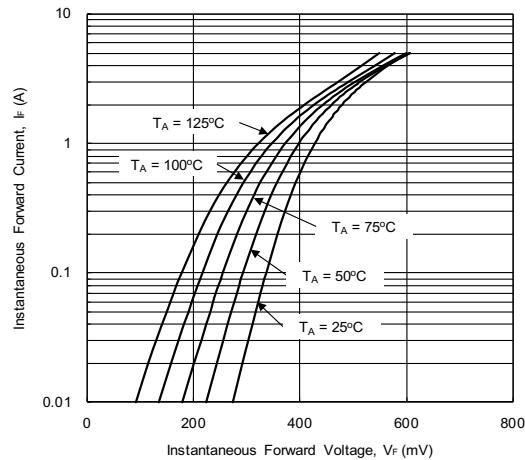


Fig. 2 - Reverse Characteristics

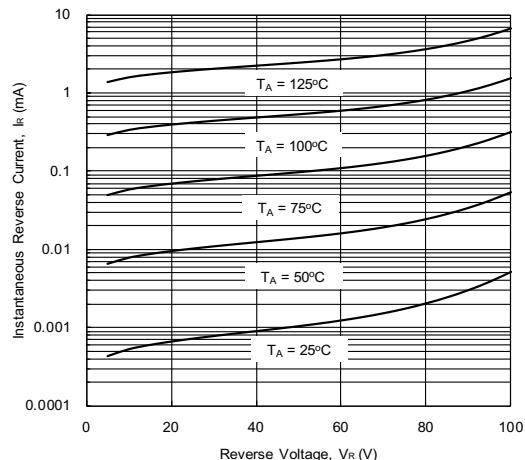


Fig. 3 - Forward Power Dissipation

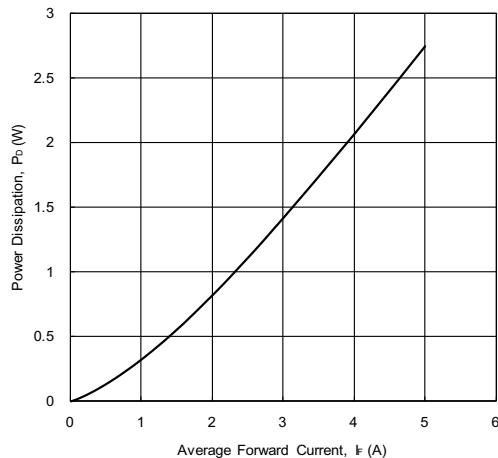


Fig. 4 - Forward Current Derating Curve

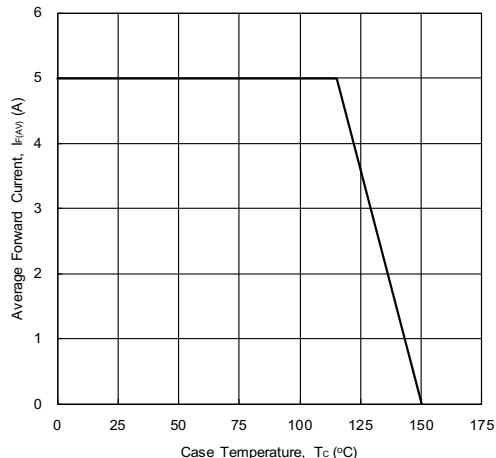
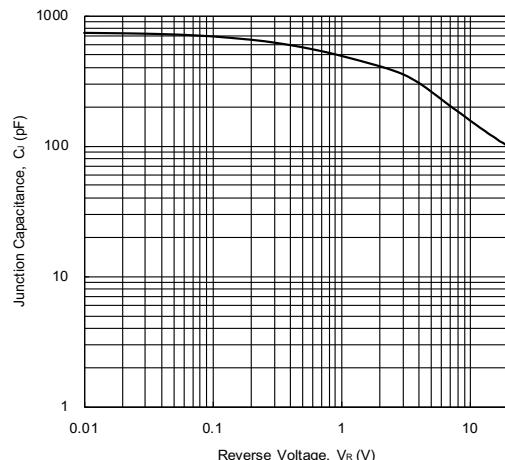


Fig. 5 - Junction Capacitance



# PACKAGE OUTLINE AND DIMENSIONS

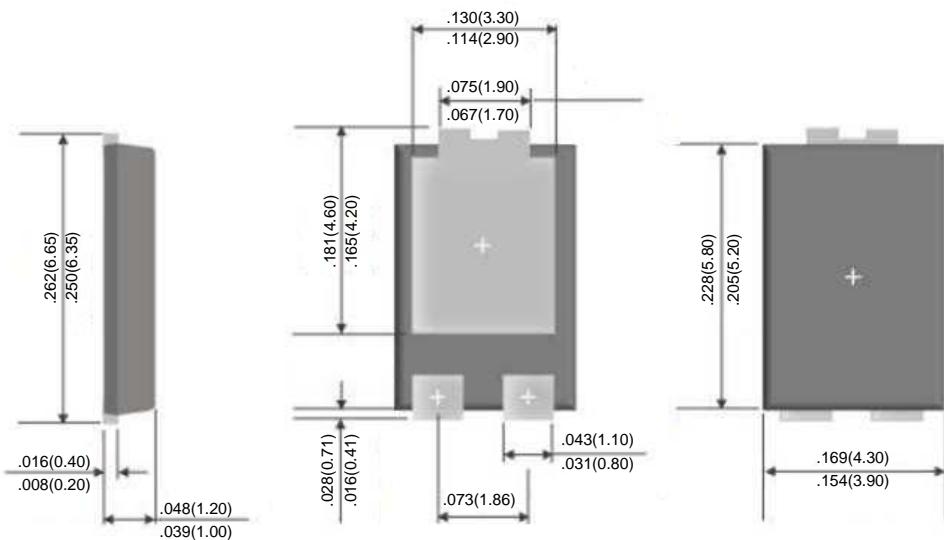
YS5L100SL

## 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 TO-277 package. It features a central pad with a width of 0.038(0.97) and a height of 0.055(1.40). To its left is a larger pad with a width of 0.173(4.40) and a height of 0.138(3.50). Below the central pad are two smaller pads, each with a width of 0.046(1.18) and a height of 0.083(2.10). The entire footprint is labeled "unit: mm".</p>	<p>The marking code diagram shows a rectangular area with a logo consisting of a stylized 'Y' and 'S'. Below the logo, the text "5L100SL" is printed in large bold letters, followed by "XXXX" in smaller letters.</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					
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