



5.0A Surface Mount Schottky Barrier Rectifiers

**Features**

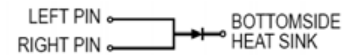
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Lead free in compliance with EU ROHS.

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
- Expyo : UL-94-V0 rated flame retardant.
- Lead : Solder plated, solderable per MIL-STD-750, Method 2026.
- Mounting Postition : Any.
- Weight : Approximated 0.093 grams.

Pin Configuration**Maximum Ratings and Electrical Characteristics @T_A =25 °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°C, 10 cycles	I_{RRM}	1	A
Thermal resistance	Junction to case	$R_{\theta JC}$	5	°C/W
	Junction to ambient	$R_{\theta JA}$	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

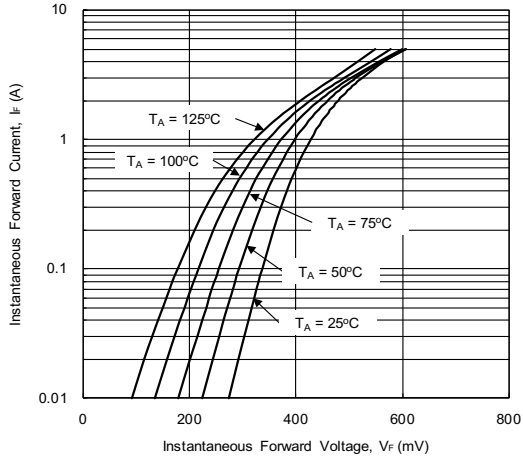


Fig. 2 - Reverse Characteristics

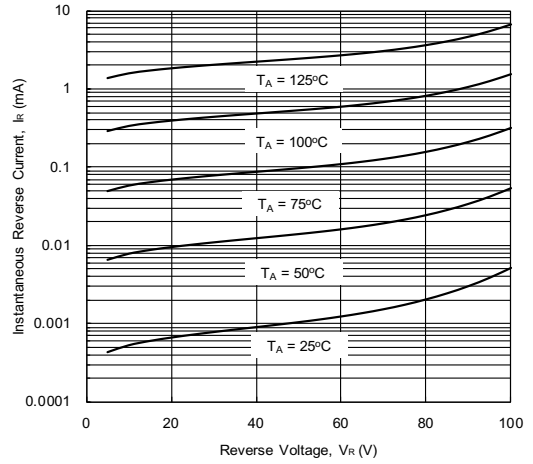


Fig. 3 - Forward Power Dissipation

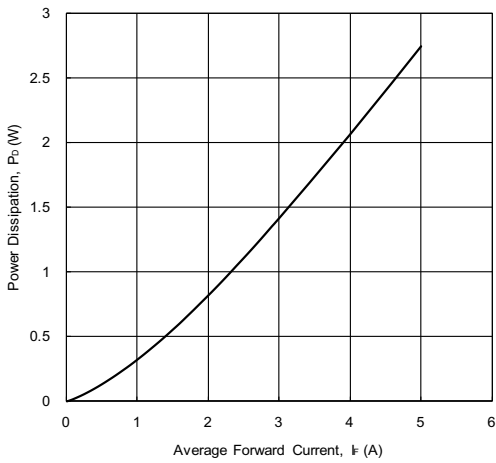


Fig. 4 - Forward Current Derating Curve

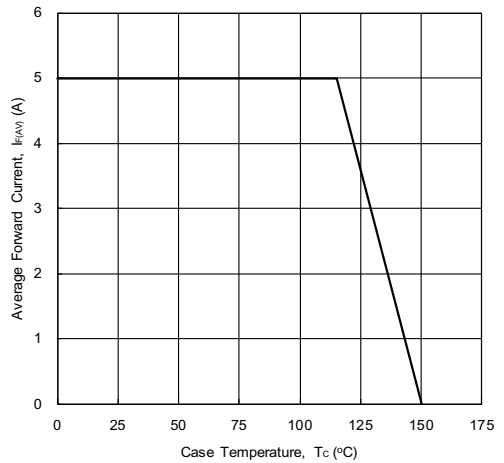
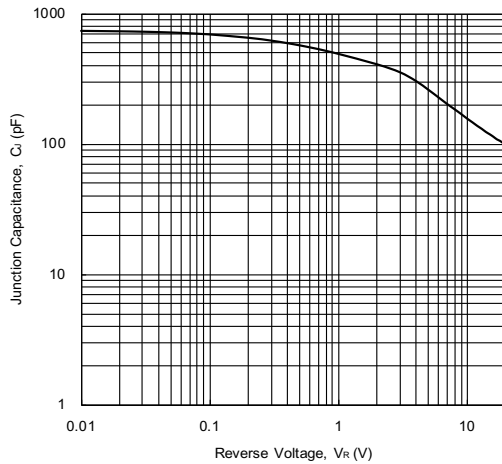


Fig. 5 - Junction Capacitance



PACKAGE OUTLINE AND DIMENSIONS

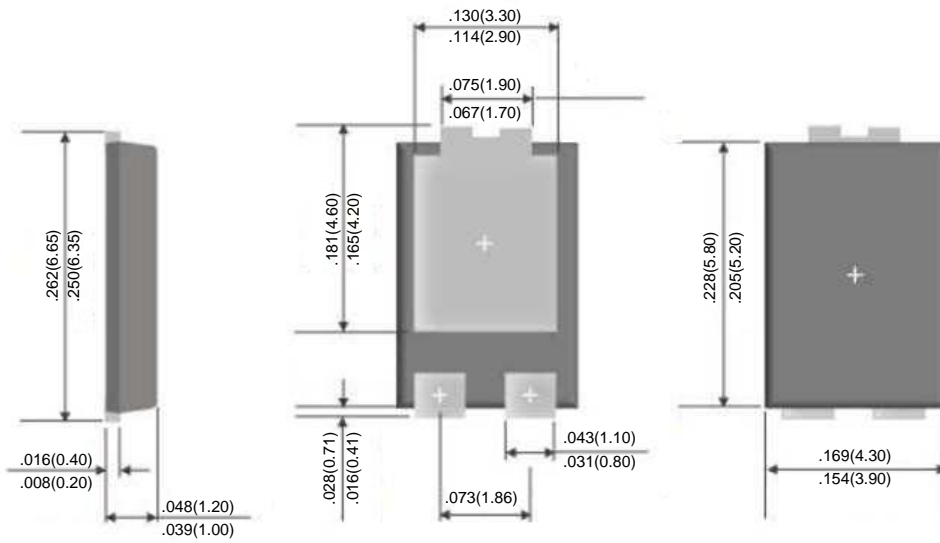
YS5L100SL

PACKAGE AND SUGGESTED PAD LAYOUT DIMENSION

TO-277

Outline drawing and Dimension

unit: inch (mm)



FOOT PRINT RECOMMENDATION	MARKING CODE						
<p style="text-align: center;">unit: mm</p>	<table border="1" style="width: 100%; text-align: center;"> <tr> <td data-bbox="802 1805 1018 1845">YS</td> <td data-bbox="1018 1805 1233 1845">5L100SL</td> <td data-bbox="1233 1805 1449 1845">XXXX</td> </tr> <tr> <td data-bbox="802 1845 1018 1886">Logo</td> <td data-bbox="1018 1845 1233 1886">Device name</td> <td data-bbox="1233 1845 1449 1886">Date Code</td> </tr> </table>	YS	5L100SL	XXXX	Logo	Device name	Date Code
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