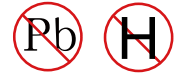




5.0A Surface Mount Schottky Barrier Rectifiers

**Features**

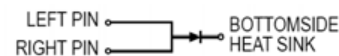
- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: TO-277, molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version

Applications

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

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

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	YS05T100SL		Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100		V
Working Peak Reverse Voltage	V_{RWM}			
DC blocking voltage	V_{DC}			
RMS Rectified Voltage	$V_{R(RMS)}$	70		V
Average Rectified Output Current (Note1)	$I_F(AV)$	5.0		A
Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load (JEDEC Method) (Note2)	I_{FSM}	150		A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	93.375		A^2s
Forward Voltage Drop $T_A = 25^\circ\text{C}$ @ $I_F = 1\text{A}$ $T_A = 25^\circ\text{C}$ @ $I_F = 3\text{A}$ $T_A = 25^\circ\text{C}$ @ $I_F = 5\text{A}$	V_{FM}	Typ. 0.40 0.47 0.52	Max. - - 0.60	V
Peak Reverse Current At Rated DC Blocking Voltage $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	I_R	0.3 15		mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ $R_{\theta JL}$	80 15		$^\circ\text{C/W}$
Operating and Storage junction temperature range	T_J, T_{STG}	-55 to +150		$^\circ\text{C}$

Note: 1. Valid Provided that are kept at ambient temperature at a distance of 9.5mm from the case.

2. Fr-4pcb. 2oz. Copper, minimum recommend pad layout .18.8mm×14.4. Anode pad dimensions 5.6mm×14.4mm.

DEVICE CHARACTERISTICS

YS05T100SL

Fig.1 - Forward Current Derating Curve

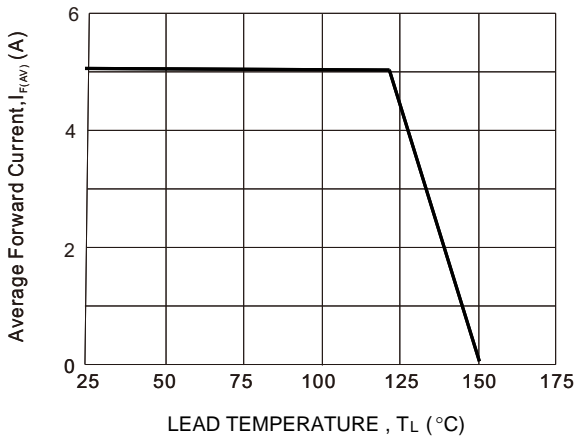


Fig. 2 Typical Forward Characteristics (per leg)

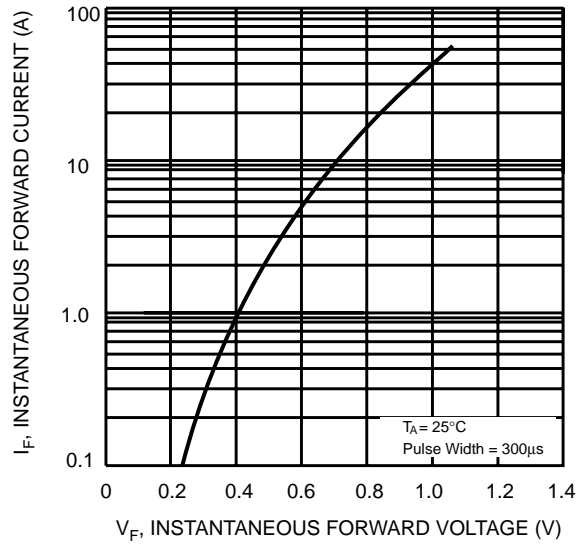


Fig. 3 Maximum Peak Forward Surge Current (per leg)

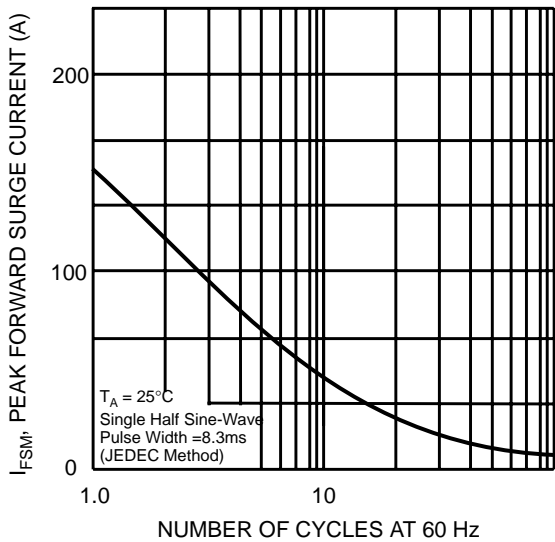
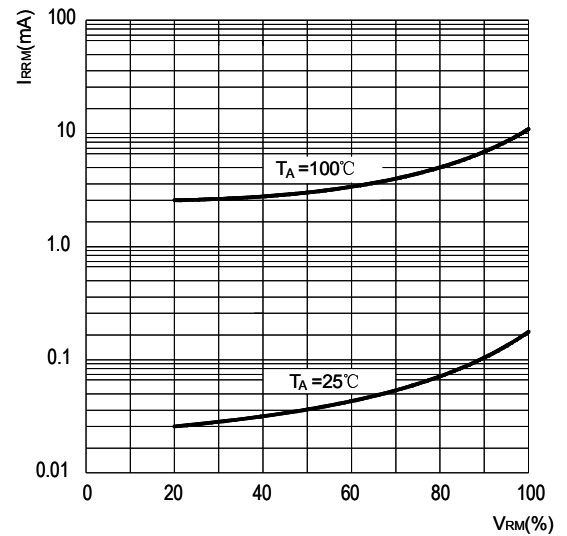


Fig4: Typical Reverse Characteristics



PACKAGE OUTLINE AND DIMENSIONS

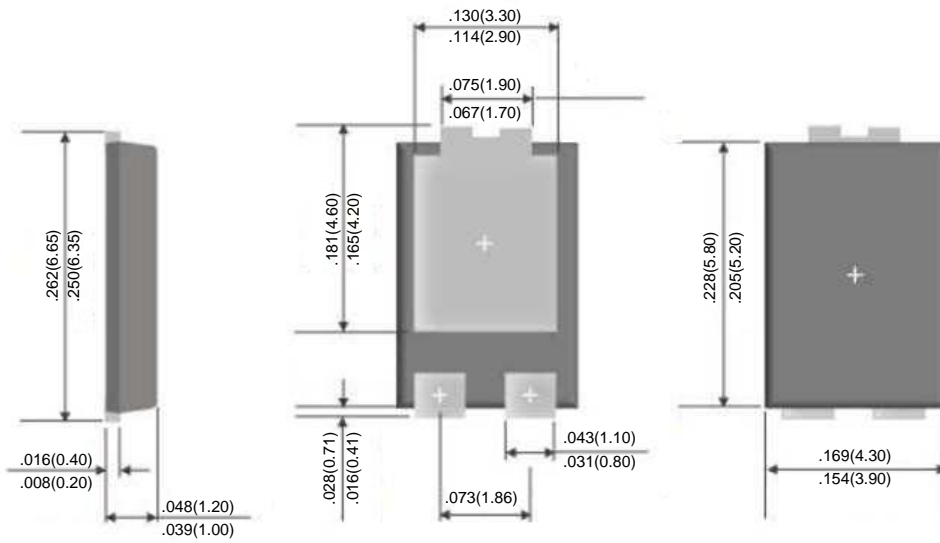
YS05T100SL

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>YS</td> <td>05T100SL</td> <td>XXXX</td> </tr> <tr> <td>Logo</td> <td>Device name</td> <td>Date Code</td> </tr> </table>	YS	05T100SL	XXXX	Logo	Device name	Date Code
YS	05T100SL	XXXX					
Logo	Device name	Date Code					