



5.0A Surface Mount Schottky Barrier Rectifiers



**Features**

- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Fow Power Loss,High Efficiency
- Excellent High Temperature Stability
- Plastic material-UL flammability 94V-0
- AEC-Q101 qualified

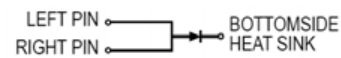
**Mechanical Data**

- 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<sub>A</sub> =25 °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 <sub>RRM</sub>	100		V
Working Peak Reverse Voltage	V <sub>RWM</sub>			
DC blocking voltage	V <sub>DC</sub>			
RMS Rectified Voltage	V <sub>R(RMS)</sub>	70		V
Average Rectified Output Current (Note1)	IF(AV)	5.0		A
Non-Repetitive Peak Forward Surge8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC Method) (Note2)	IFSM	150		A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	93.375		A <sup>2</sup> s
Forward Voltage Drop T <sub>A</sub> =25 °C @IF=1A T <sub>A</sub> =25 °C @IF=3A T <sub>A</sub> =25 °C @IF=5A	V <sub>FM</sub>	Typ.	Max.	V
		0.40	-	
		0.47	-	
		0.52	0.60	
Peak Reverse Curent At Rated DC Blocking Voltage	I <sub>R</sub>	T <sub>A</sub> =25°C	0.3	mA
		T <sub>A</sub> =100°C	15	
Typical Thermal Resistance Junctionto Ambient	R <sub>θJA</sub> R <sub>θJL</sub>	80 15		°C/W
Operating and Storage junction temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150		°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-A

Fig.1 - Forward Current Derating Curve

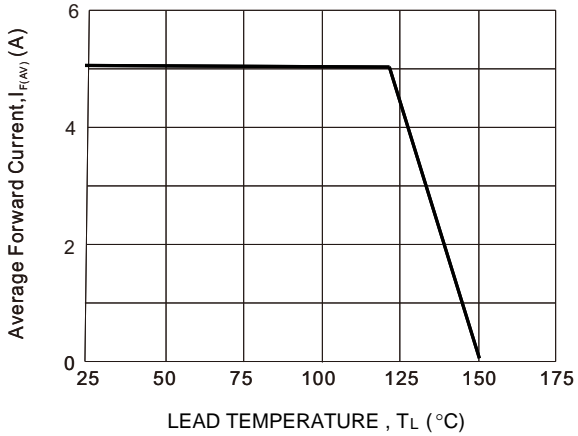


Fig. 2 Typical Forward Characteristics (per leg)

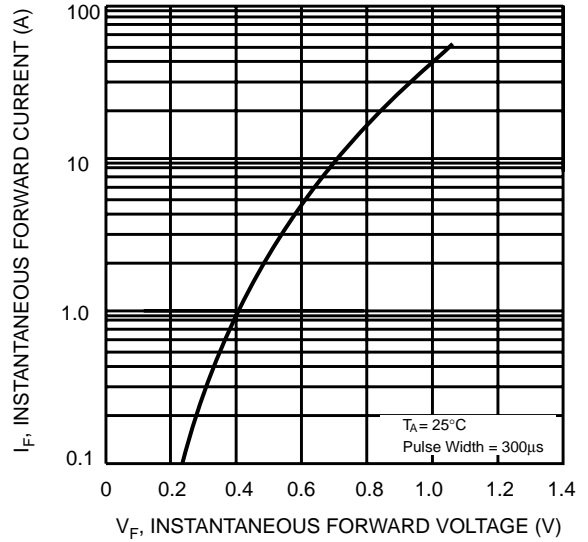


Fig. 3 Maximum Peak Forward Surge Current (per leg)

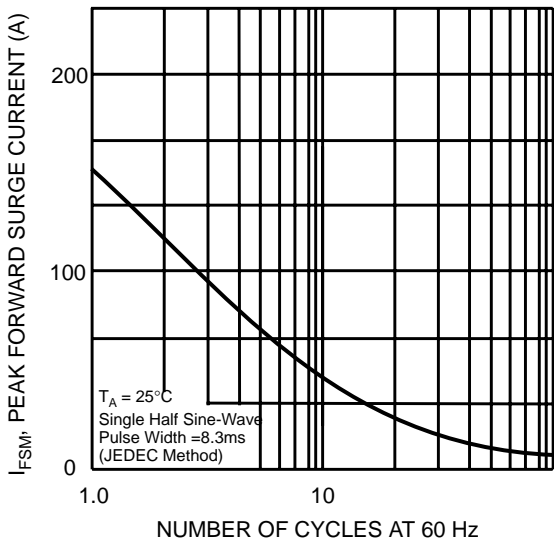
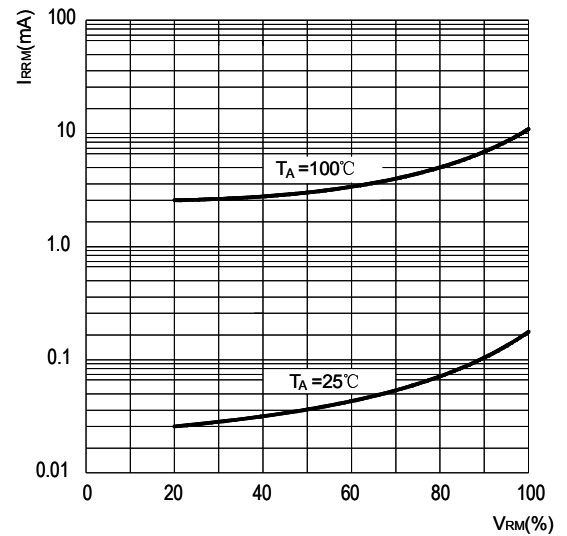


Fig4: Typical Reverse Characteristics



# PACKAGE OUTLINE AND DIMENSIONS

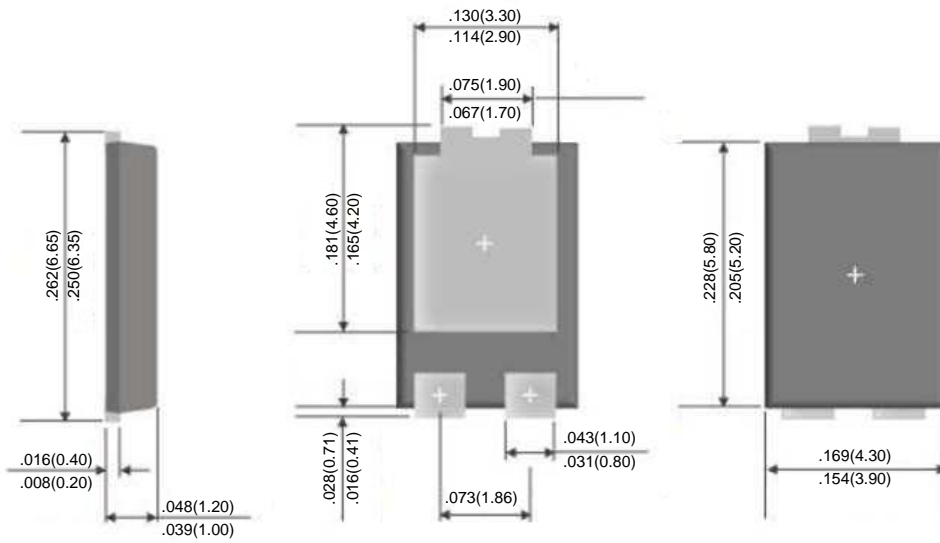
## YS05T100SL-A

### 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					
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