

# SS8U45 thru SS8U60

Schottky Barrier Rectifiers

Reverse Voltage 45 to 60V Forward Current 8A

## FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Low power loss,high efficiency
- \* For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
- \* Guardring for over voltage protection
- \* High temperature soldering guaranteed: 260°C/10 seconds at terminals

## Mechanical Data

Case: JEDEC TO-277A,  
molded plastic over SKY body  
Terminals: Plated leads, solderable per  
MIL-STD-750, Method 2026

Mounting Position: Any

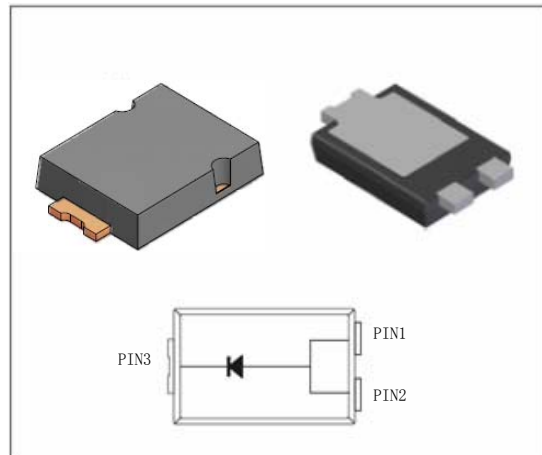
Weight: 0.108 g

Handling precaution:None

## 1.Electrical Characteristic

**Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.**

Parameter Symbol	symbol	SS8U45	SS8U60	Unit
device marking code		SS8U45	SS8U60	
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	60	V
Maximum RMS voltage	$V_{RMS}$	31.5	42	V
Maximum DC blocking voltage	$V_{DC}$	45	60	V
Maximum average forward rectified current at $T_c = 110^\circ\text{C}$	$I_F(AV)$	8.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150		A
Typical thermal resistance (Note 1)	$R_{\theta JC}$	8		°C/W
	$R_{\theta JL}$	15		
	$R_{\theta JA}$	31		
Typical thermal resistance (Note 3)	$R_{\theta JA}$	135		°C/W
Operating junction temperature range	$T_J$	-55 to +150		°C
Storage temperature range	$T_{STG}$	-55 to +175		°C



We declare that the material of product is Haloggen free (green epoxy compound)

**Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.**

Parameter Symbol	symbol	SS8U45	SS8U60	Unit
Maximum instantaneous forward voltage at 8A at 25°C	$V_F$	0.47	0.50	V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_J = 100^\circ\text{C}$ (note2) at rated DC blocking voltage $T_J = 125^\circ\text{C}$ (note2)	$I_R$	0.30	0.10	mA
		15.0	10.0	
		80	-	
Typical junction capacitance at 4.0V, 1MHz	$C_J$	500		PF

NOTES:

1. Polyimide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.
2. Short duration pulse test used to minimize self-heating effect .
3. FR-4 PCB, 2oz. Copper.

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## 2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

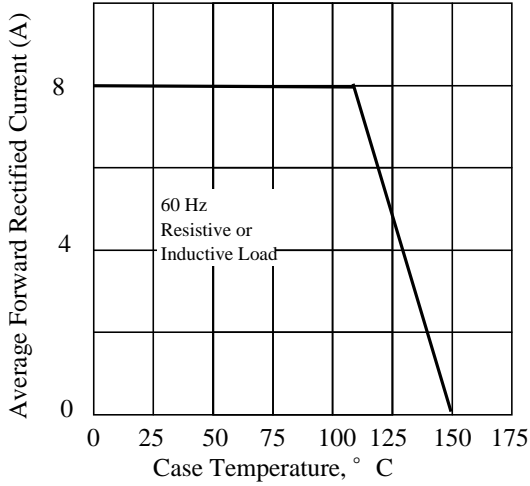


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

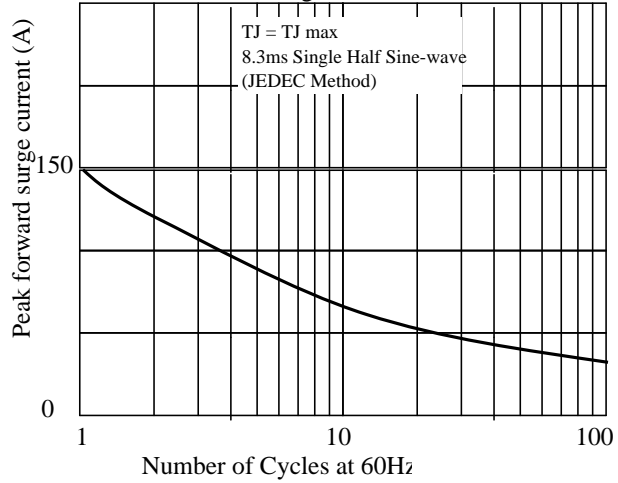


Fig 3. - Typical Instantaneous Forward Characteristics

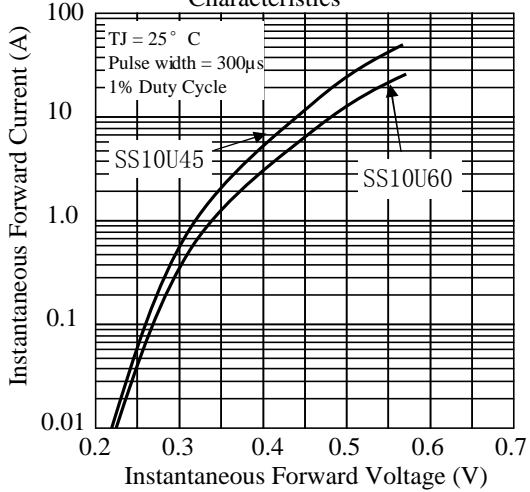


Fig 4. - Typical Reverse Characteristics

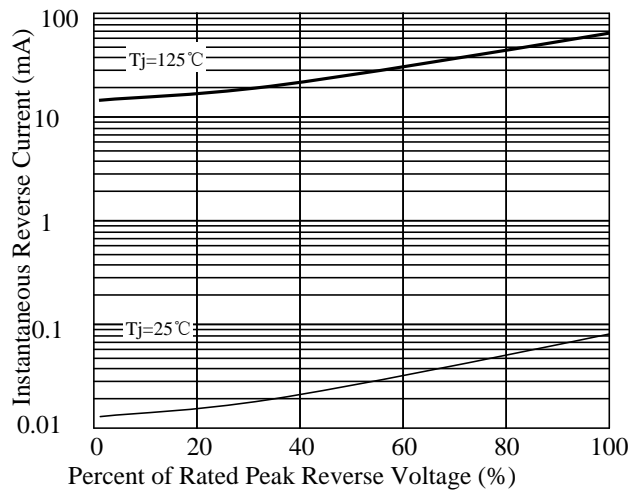


Fig 5. - typical transient thermal impedance(Note 3)

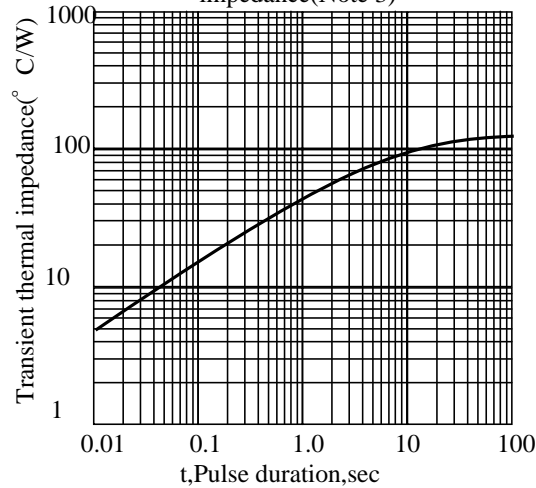
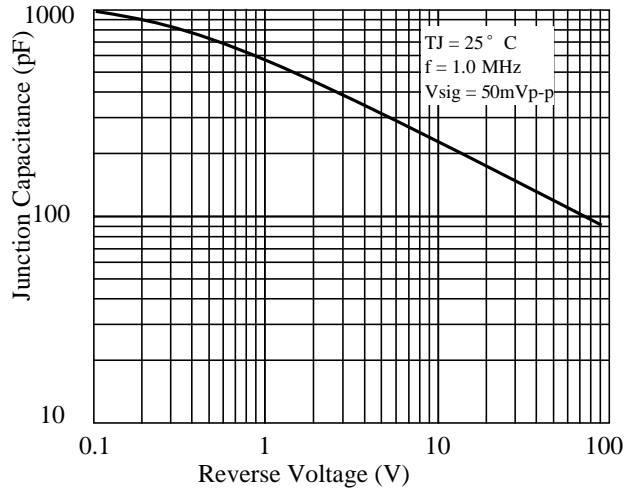


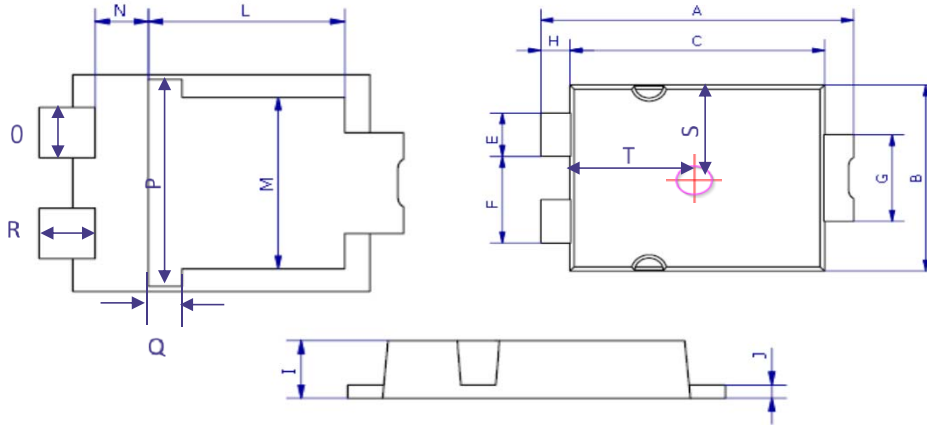
Fig 6. - Typical Junction Capacitance



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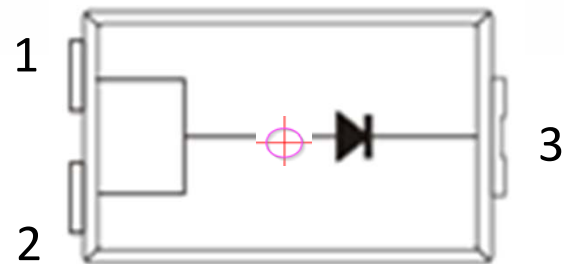
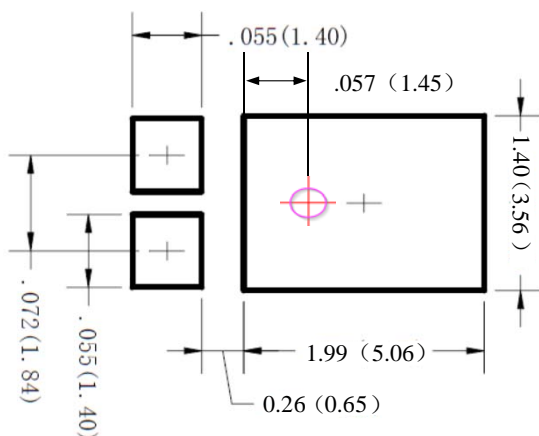
### 3. dimension:

### TO-277A



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	6.3	6.7	0.248	0.264
B	4.1	4.5	0.161	0.177
C	5.1	5.5	0.201	0.217
E	0.9	1.1	0.035	0.043
F	1.9	2.1	0.075	0.083
G	1.9	2.1	0.075	0.083
H	0.50	0.70	0.020	0.028
I	1.00	1.20	0.039	0.047
J	0.15	0.35	0.006	0.014
L	3.30	3.70	0.130	0.146
M	3.20	3.60	0.126	0.142
N	0.80	1.10	0.033	0.043
O	0.90	1.10	0.035	0.043
P	3.90	4.30	0.154	0.169
Q	0.50	0.80	0.020	0.031
R	0.85	1.15	0.033	0.045
S	2.00	2.30	0.079	0.091
T	2.50	2.80	0.098	0.110

### Mounting PAD layout



- 1: Anode
- 2: Anode
- 3: Cathode

## SS8U45 thu SS8U60

### 4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2015.05.20

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)