

# S-SM540A

## Schottky Barrier Rectifiers

Reverse Voltage 40V Forward Current 5.0A

### 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
- \* S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

### Mechanical Data

Case: JEDEC DO-214AC,  
molded plastic over glass body  
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026  
Polarity: Color band denotes cathode end  
Mounting Position: Any  
Weight: 0.0023 oz., 0.065 g  
Handling precaution:None



We declare that the material of product compliance with ROHS requirements

### 1.Electrical Characteristic

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

Parameter Symbol	symbol	S-SM540A	Unit
device marking code		S54	
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	V
Maximum RMS voltage	$V_{RMS}$	28	V
Maximum DC blocking voltage	$V_{DC}$	40	V
Maximum average forward rectified current at $T_L = 75^\circ\text{C}$	$I_{F(AV)}$	5.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	120	A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	150	$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-40 to +150	$^\circ\text{C}$

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

Parameter Symbol	symbol	S-SM540A	Unit
Maximum instantaneous forward voltage at 5.0A	$V_F$	0.55	V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_J = 100^\circ\text{C}$	$I_R$	0.5 10.0	mA
Typical junction capacitance at 4.0V, 1MHz	$C_J$	240	PF

#### NOTES:

1. 8.0mm<sup>2</sup> (.013mm thick) land areas

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

Fig. 1 - Forward Current Derating Curve

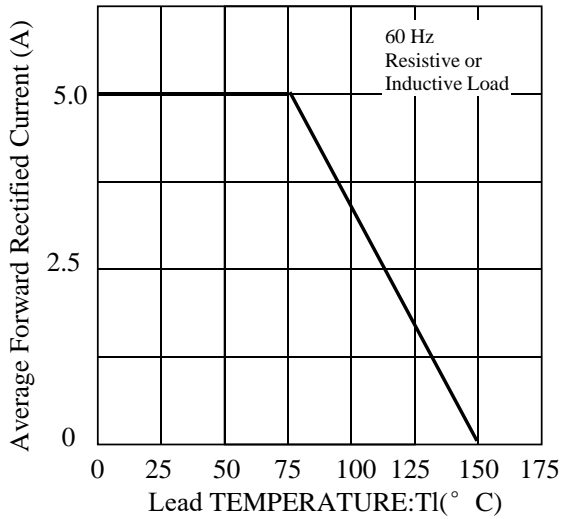


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

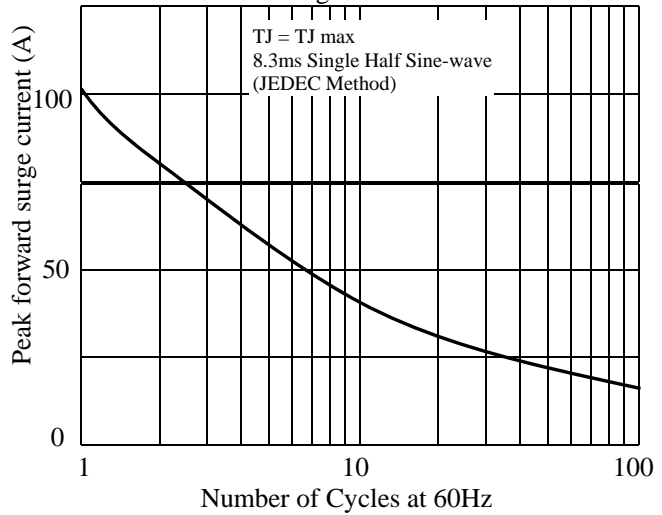


Fig 3. - Typical Instantaneous Forward Characteristics

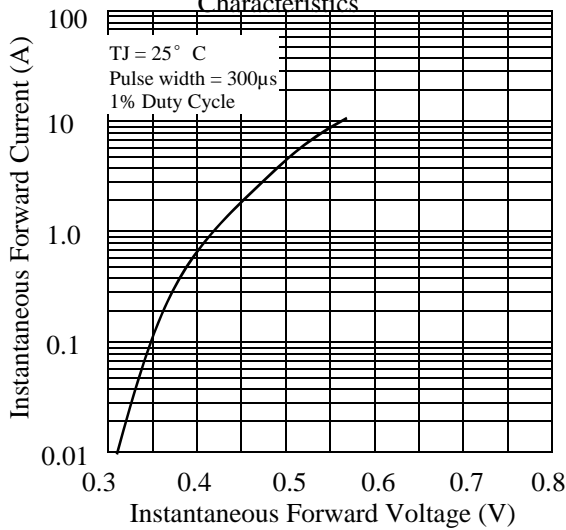


Fig 4. - Typical Reverse Characteristics

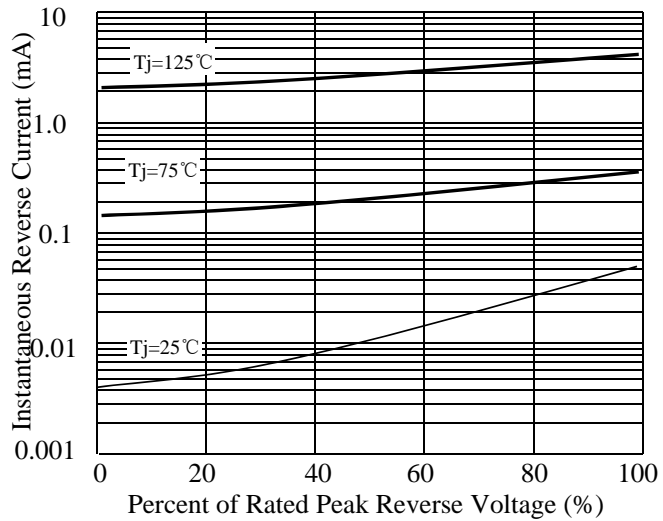


Fig 5. - typical transient thermal impedance

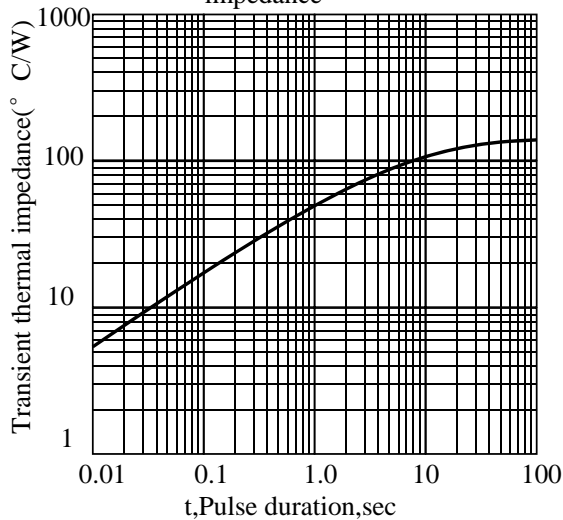
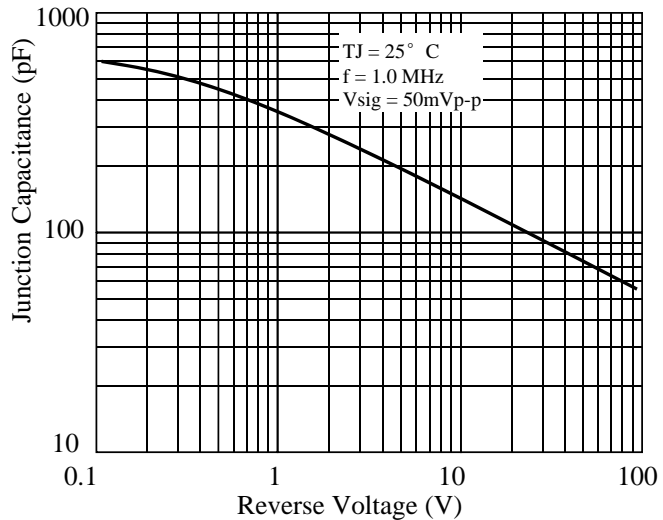
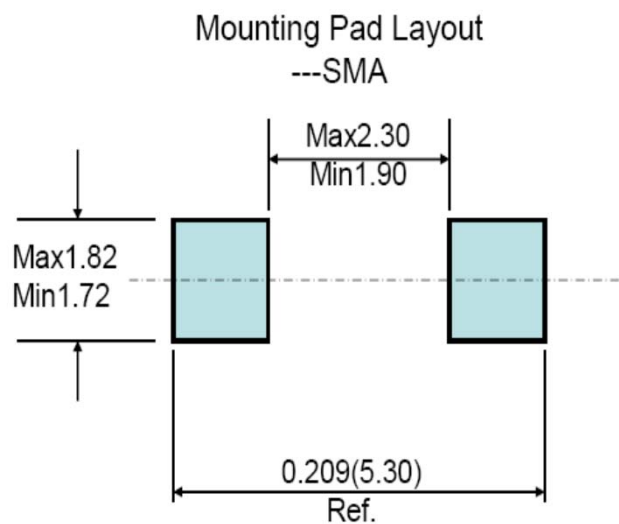
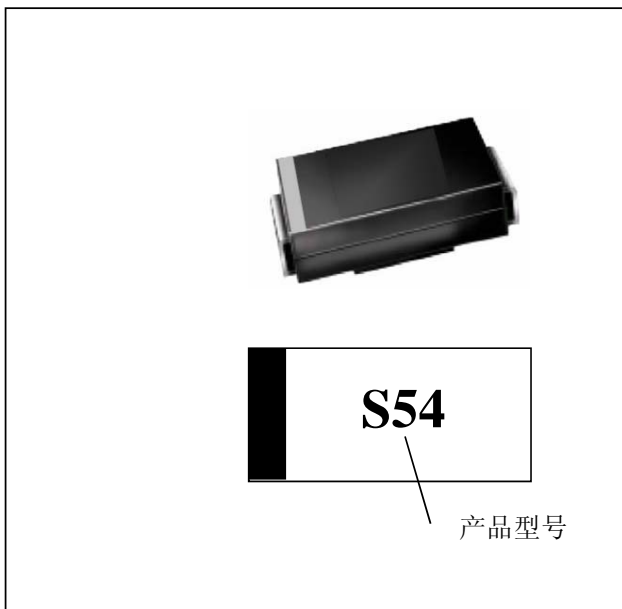
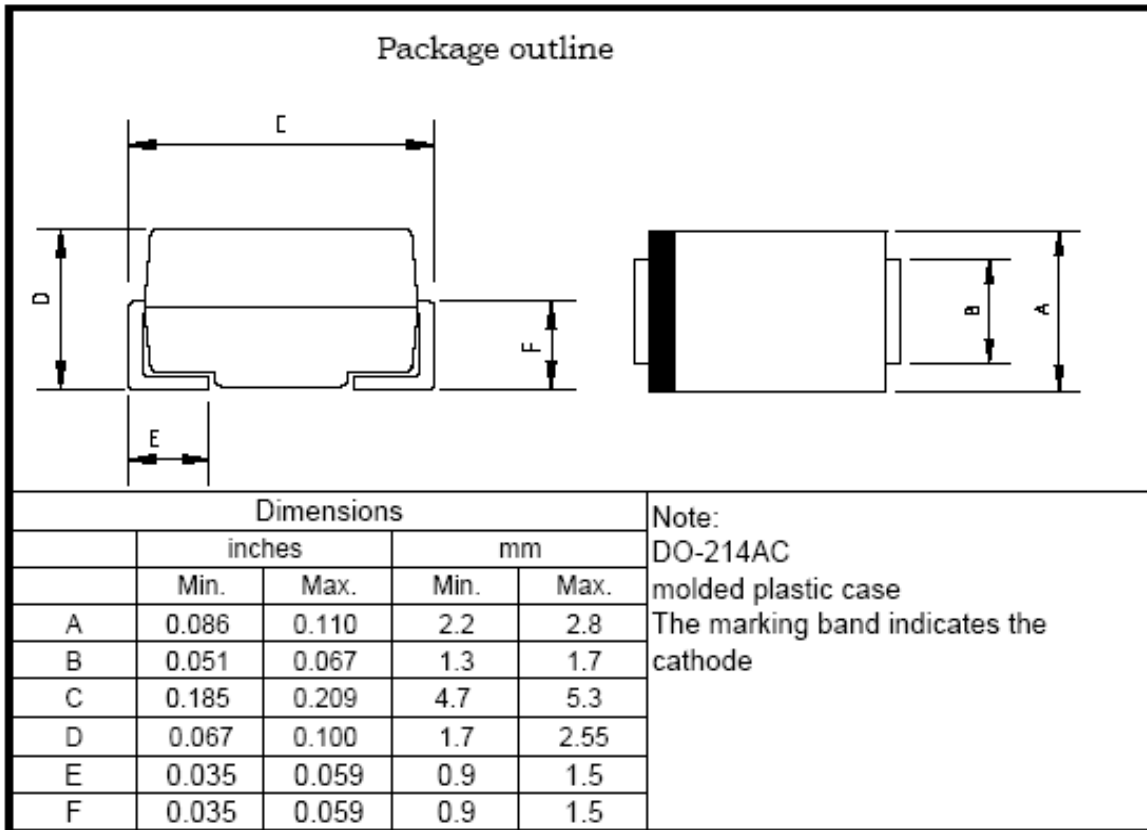


Fig 6. - Typical Junction Capacitance



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### 3. dimension:



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### 6. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	谭志伟	2020-12-07
A	VF0.50V更新为0.55V	谭志伟	2021-10-19

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)