



# SS54L~SS510L

## 5.0Amp Surface Mounted Schottky Barrier Rectifiers

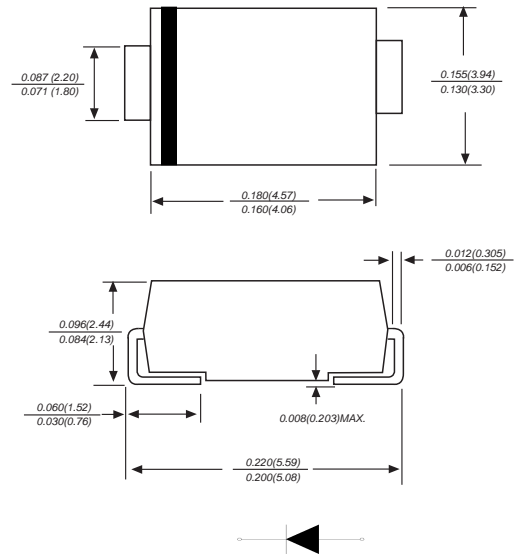
### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief, ideal for automated placement
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
250°C/10 seconds at terminals

### Mechanical Data

Case : Molded plastic body  
 Terminals : Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity : Polarity symbol marking on body  
 Mounting Position : Any  
 Weight : 0.0035 ounce, 0.098 grams

DO-214AA/SMB



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	SS54L	SS545L	SS55L	SS56L	SS58L	SS510L	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	40	45	50	60	80	100	V
Maximum RMS voltage	V <sub>RMS</sub>	28	31.5	35	42	56	70	V
Maximum DC blocking voltage	V <sub>DC</sub>	40	45	50	60	80	100	V
Maximum average forward rectified current at T <sub>L</sub> =100°C	I <sub>(AV)</sub>	5.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	120.0						A
Maximum instantaneous forward voltage at 5.0A	V <sub>F</sub>	0.48		0.55		0.70		v
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C	I <sub>R</sub>	0.5 50				0.2 20		mA
Typical thermal resistance	R <sub>qJA</sub>	85.0						°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +150						°C
Storage temperature range	T <sub>STG</sub>	-55 to +150						°C



**Ratings And Characteristic Curves**

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

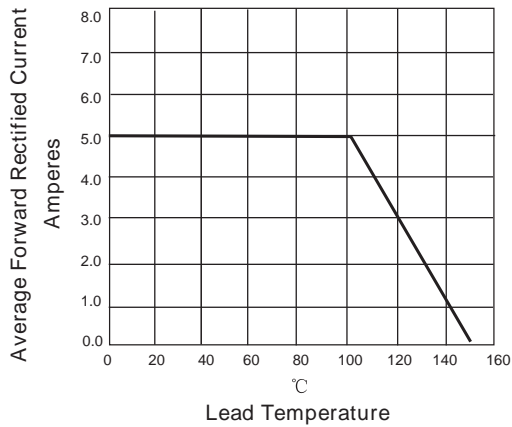


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

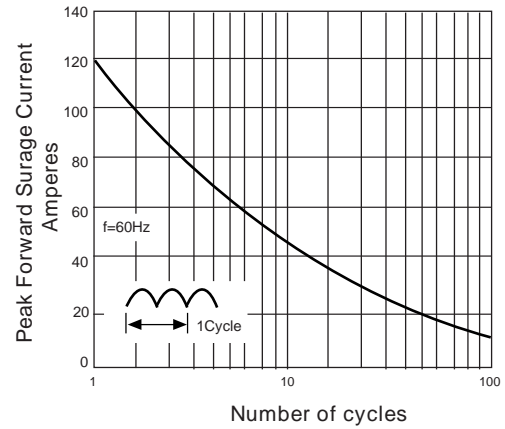


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

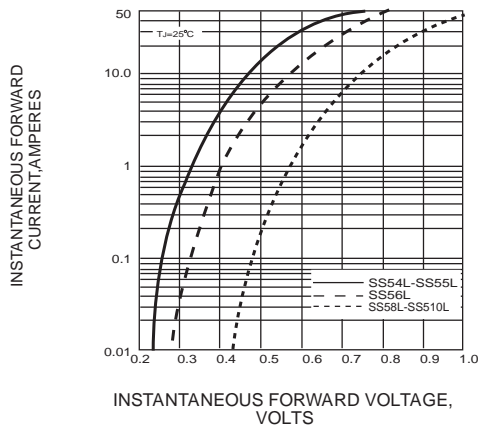
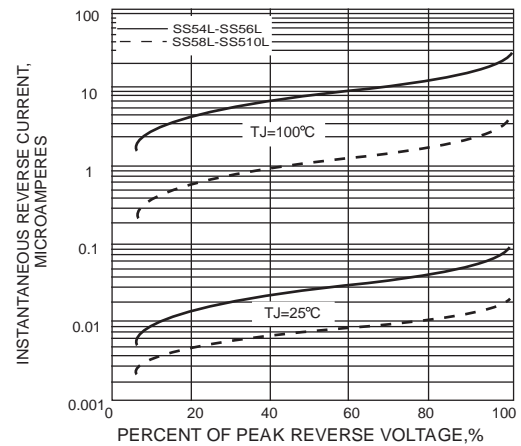
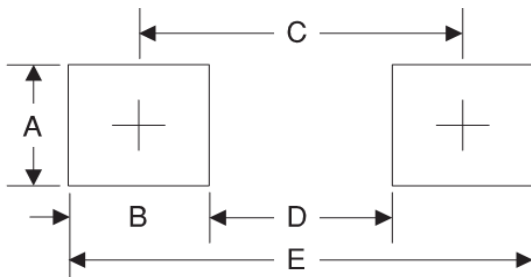


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



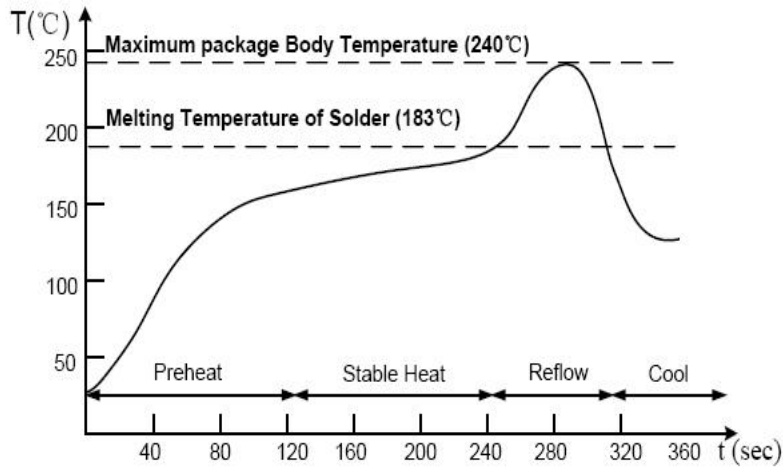
**Suggested Pad Layout**



Symbol	Unit (mm)	Unit (inch)
A	2.30	0.091
B	2.00	0.078
C	4.10	0.161
D	2.10	0.083
E	6.10	0.240



**Suggested Soldering Temperature Profile**

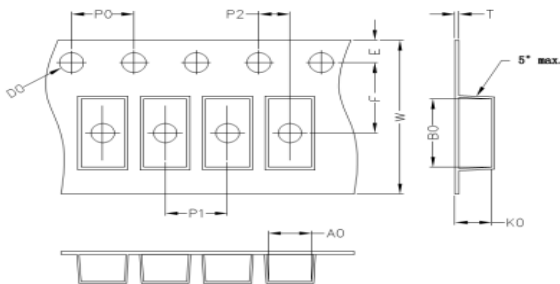


**Note**

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

**Package Information**

**Carrier Dimension(mm)**



A0	B0	K0	D0	E	F
3.80	5.40	2.45	1.55	1.75	5.50
P0	P1	P2	T	W	Tolerance
4.0	8.0	2.0	0.25	12	0.1

**Package Specifications**

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
SMB	13'	330	3.0	340	6.0	360*360*360	48