



# SS54L THRU SS520L

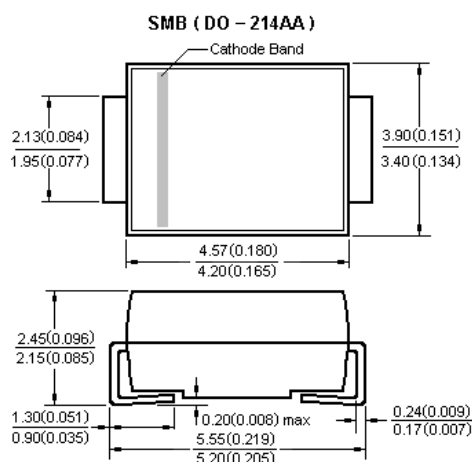
## Surface Mount Low VF Schottky Rectifiers

### Features

- Low profile package
- Ideal for automated placement
- Fast switching for high efficiency
- High forward surge capability
- High temperature soldering:  
260°C/10 seconds at terminals
- Component in accordance to  
RoHS 2002/95/1 and WEEE 2002/96/EC

### Mechanical Date

- **Case:** JEDEC DO-214AA molded plastic body
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end



### Maximum Ratings and Electrical Characteristics Rating at 25 °C

ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	SYMBOL	SS 54L	SS 545L	SS 55L	SS 56L	SS 58L	SS 510L	SS 515L	SS 520L	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	28	31	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	60	60	60	80	100	150	200	V
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	110								A
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	50.22								$\text{A}^2\text{s}$
Forward Voltage @ $I_F = 5.0\text{A}$	$V_{FM}$	0.45		0.5		0.6		0.85		V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	$I_R$	0.2				0.1				mA
At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		10				5				
Typical Junction Capacitance (Note 1)	$C_J$	300				180				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	88								$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +150								$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150								$^\circ\text{C}$

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Device mounted on FR-4 substrate, 1"\*1", 2oz, single-sided, PC boards with 0.1"\*0.15" copper pad.



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### Characteristic Curves ( $T_A=25\text{ }^\circ\text{C}$ unless otherwise noted)

Fig. 1 Forward Current Derating Curve

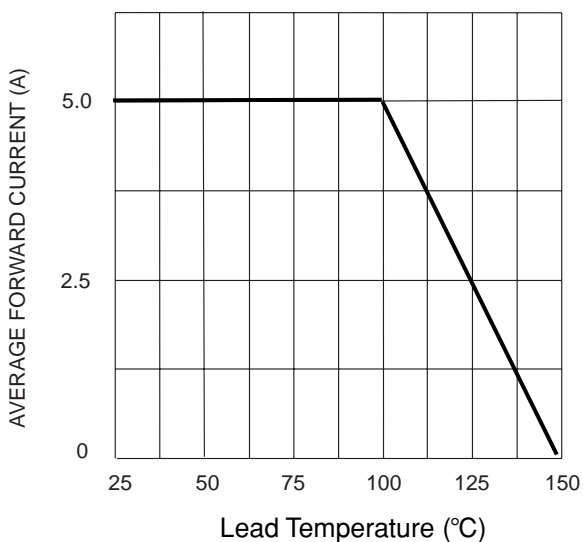


Fig. 2 Typ. Forward Characteristics

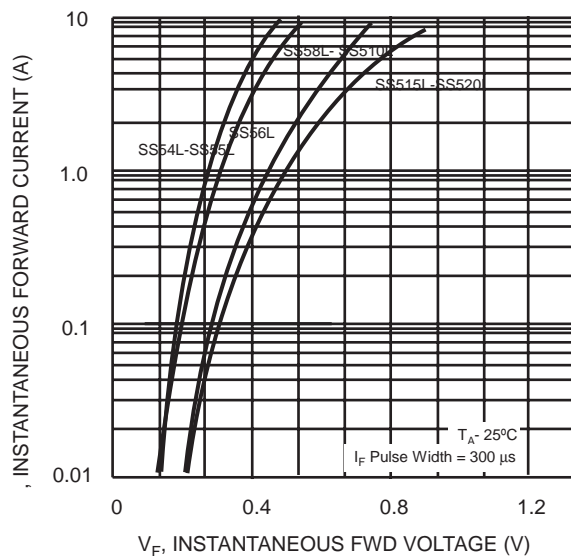


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

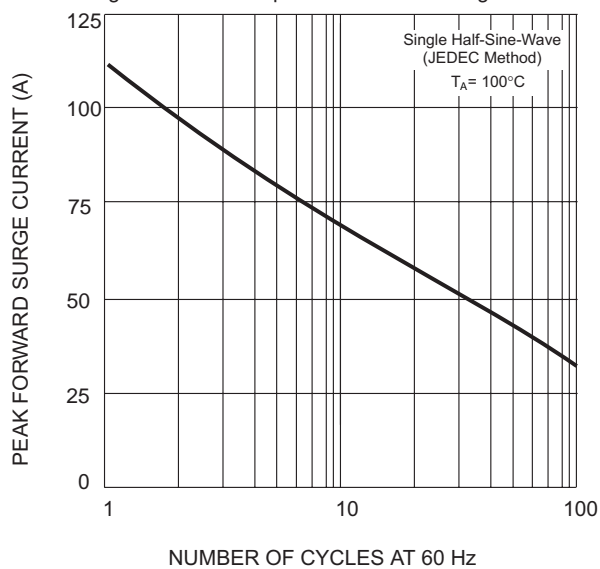
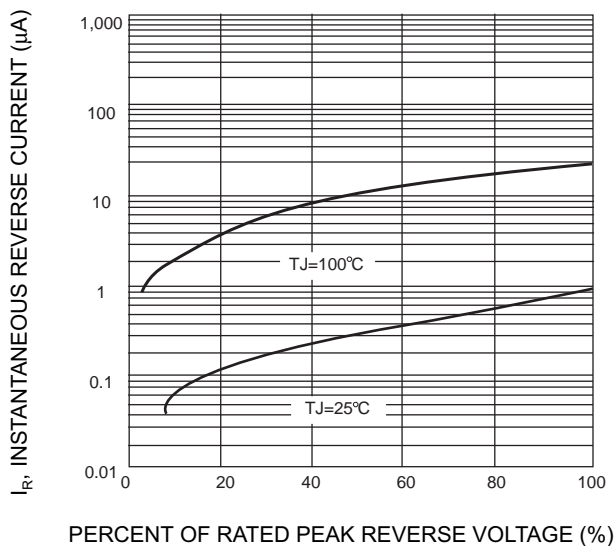


Fig. 4 Typical Reverse Characteristics (per element)



### SMA PAD LAYOUT

