



**Surface Mount Schottky Barrier Rectifiers  
Reverse Voltage 20 to 150 Volts Forward Current 5.0 Ampere**

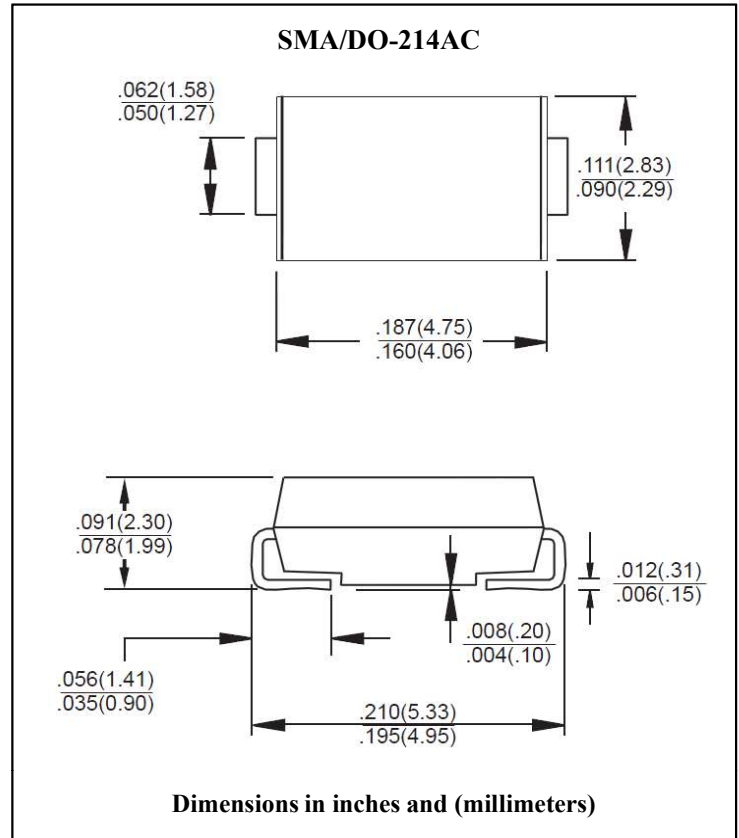
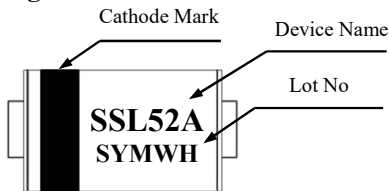
**Features**

- For surface mounted application
- Metal to silicon rectifier, majority carrier conduction
- Low forward voltage drop
- Easy pick and place
- High surge current capability
- Plastic material used carries underwriters laboratory classification 94V-O Epitaxial construction
- High temperature soldering : 260°C /10 seconds at terminals

**Mechanical Data**

- Case : Molded plastic
- Terminals : Pure tin plated, lead free
- Polarity : Indicated by cathode band
- Packaging : 12mm tape per EIA STD RS-481
- Weight : 0.064gram

**Marking**



**Maximum Ratings & Electrical Characteristics**

Ratings 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%

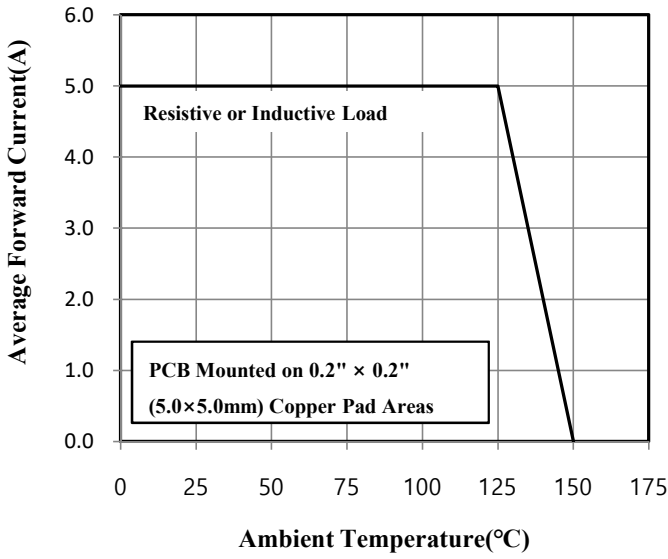
Parameter	Symbol	SSL 52A	SSL 53A	SSL 54A	SSL 55A	SSL 56A	SSL 59A	SSL 510A	SSL 515A	Unit	Remark	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	90	100	150	V		
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	105	V		
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	100	V		
Maximum Average Forward Rectified Current at $T_L$ (See Fig.1)	$I_F(AV)$	5.0								A		
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	120								A		
Maximum Instantaneous Forward Voltage @ 5.0A	$V_F$	0.45			0.65		0.75	0.85		V	Note 1	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	1.0					0.1				mA	$T_a=25^\circ C$
		20			10		2.0			mA	$T_a=125^\circ C$	
Typical Thermal Resistance	$R_{th(j-l)}$	19								$^\circ C / W$	Note 3	
	$R_{th(j-a)}$	60								$^\circ C / W$		
Operation Junction Temperature Range	$T_J$	-55 to +150								$^\circ C$		
Storage Temperature Range	$T_{STG}$	-55 to +150								$^\circ C$		

Note 1. Pulse Test with PW=300usec, 1% Duty Cycle

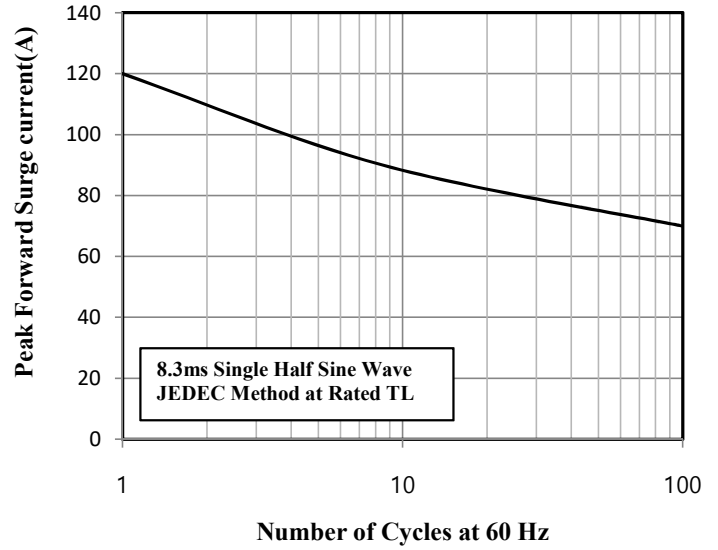
Note 2. Measured on P.C.Board with 0.4" x 0.4" (10mm x 10mm) Copper Pad Areas

Ratings and Characteristics Curves ( $T_a=25^\circ\text{C}$  unless otherwise noted)

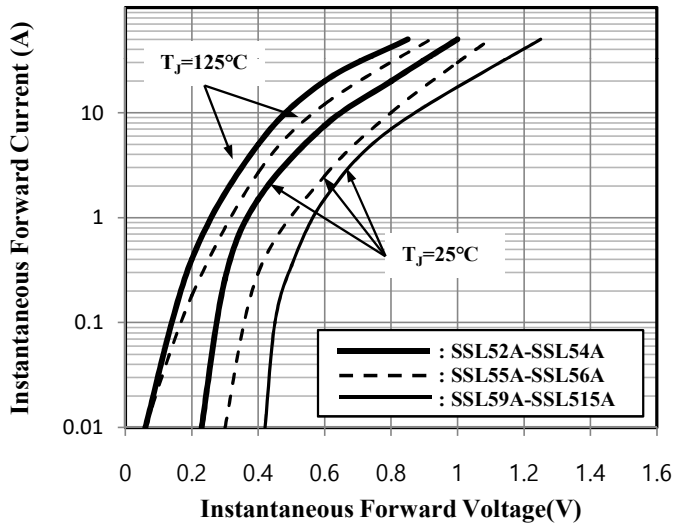
**Fig.1 Forward Current Derating Curve**



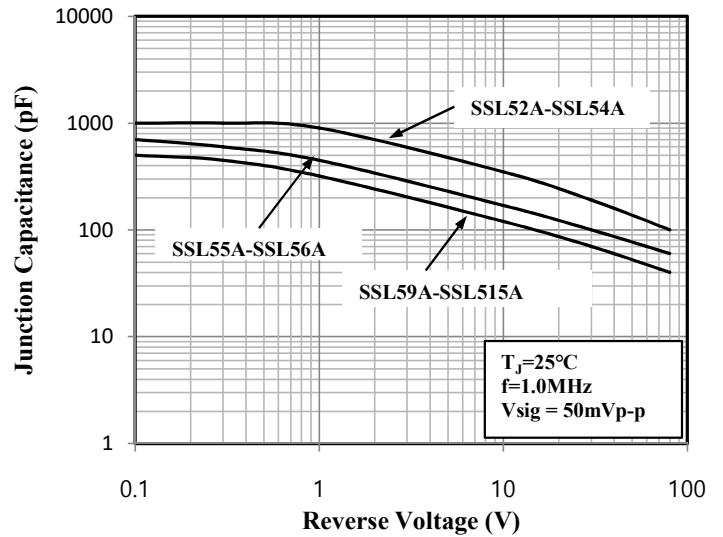
**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**



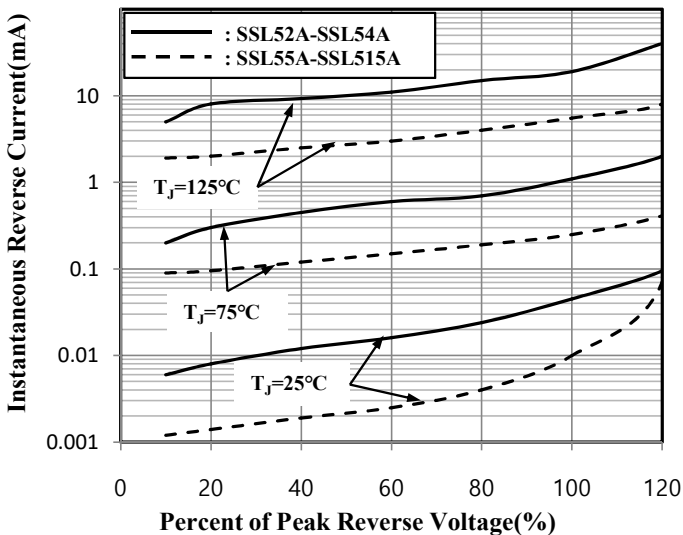
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Typical Reverse Characteristics**



**Fig.6 Typical Transient Thermal Characteristics**

