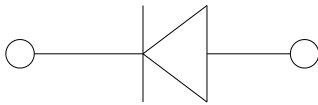
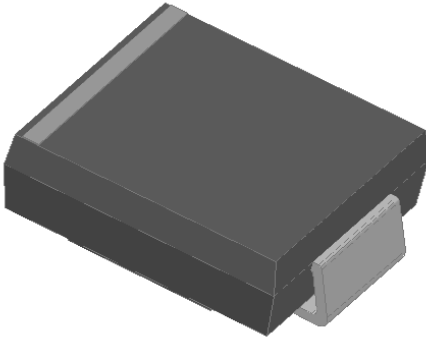


## Surface Mount Schottky Rectifier



### Features

- Guardring for overvoltage protection
- Low forward voltage drop, Low power losses
- High forward surge capability
- High frequency operation
- Solder dip 260 °C max. 10 s, per JESD 22-B106

### Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

### Mechanical Data

- **Package:** DO-214AB (SMC)  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

### ■ Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SSL54	SSL56	SSL510
Device marking code			<b>SSL54</b>	<b>SSL56</b>	<b>SSL510</b>
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	40	60	100
Average Rectified Output Current @60Hz sine wave, Resistance load, T <sub>a</sub> (FIG.1)	I <sub>o</sub>	A	5.0		
Forward Surge Current (Non-repetitive) @ 60Hz Half-sine wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	100	160	100
Storage Temperature	T <sub>stg</sub>	°C	-55 ~+125	-55 ~+150	
Junction Temperature	T <sub>j</sub>	°C	-55 ~+125	-55 ~+150	

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SSL54	SSL56	SSL510
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =5.0A	0.45	0.5	0.7
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	mA	T <sub>a</sub> =25°C	0.5		0.1
			T <sub>a</sub> =100°C	10		5

Note1: Pulse test: 300uS pulse width, 1% duty cycle

Note2: Pulse test: pulse width 40mS



# SSL54 THRU SSL510

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SSL54	SSL56	SSL510
Thermal Resistance	Junction to ambient	R <sub>θJ-A</sub>	°C/W	50 <sup>(1)</sup>		
	Junction to lead	R <sub>θJ-L</sub>	°C/W	15 <sup>(1)</sup>		

Note(1)

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

## ■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SSL54~SSL510	F1	Approximate 0.252	3000	/	42000	13" reel

## ■ Characteristics(Typical)

FIG.1: I<sub>o</sub>-T<sub>L</sub> Curve

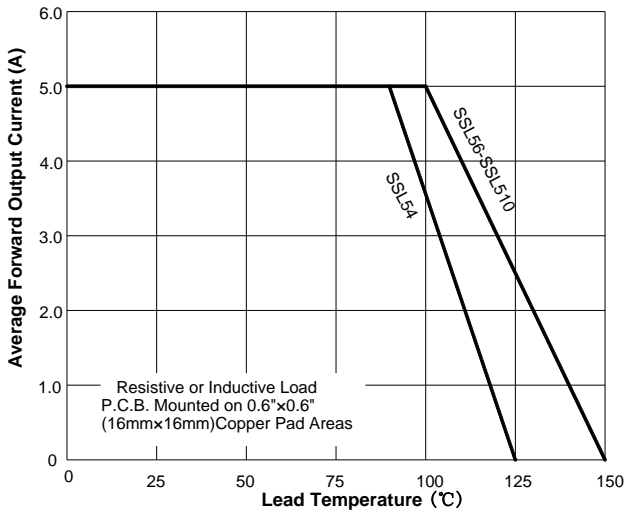


FIG.2: Forward Surge Current Capability

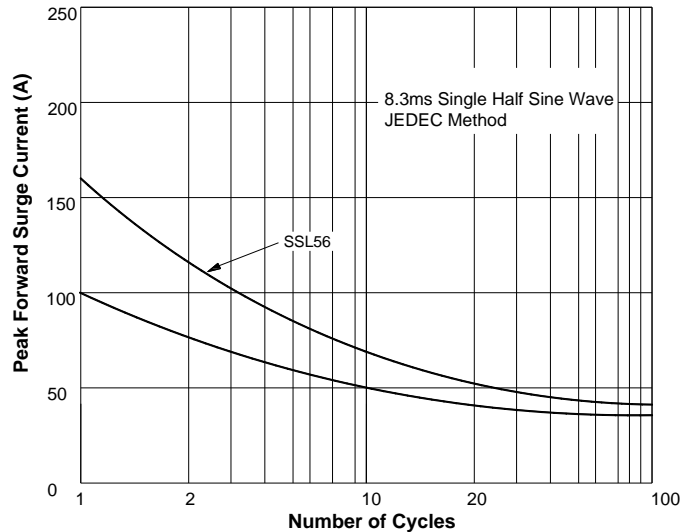


FIG.3: Forward Voltage

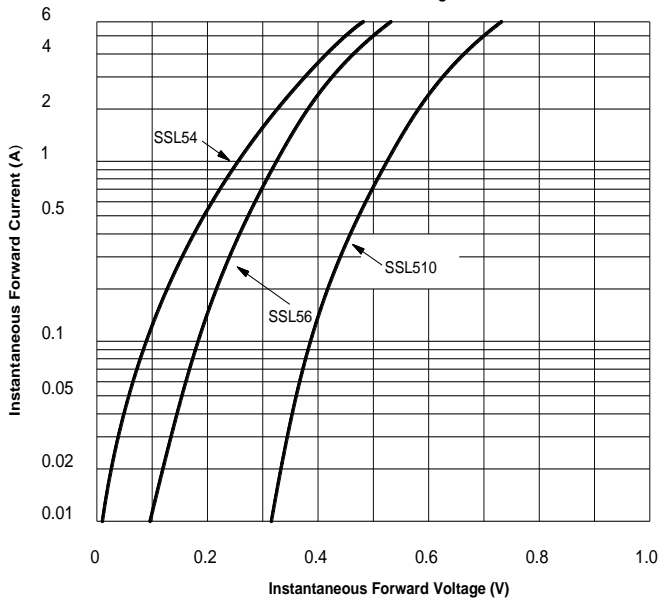
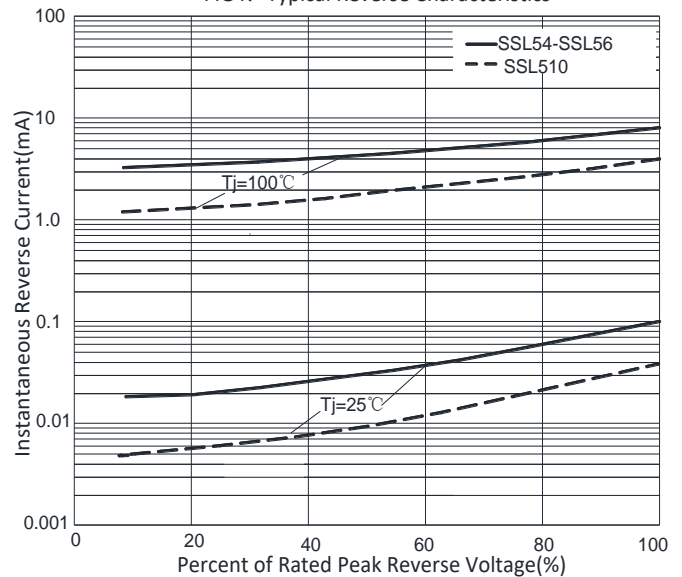


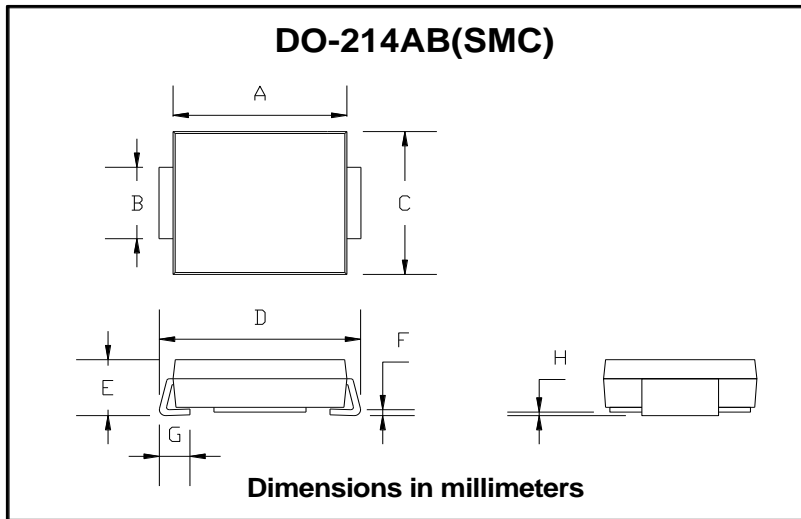
FIG.4: Typical Reverse Characteristics





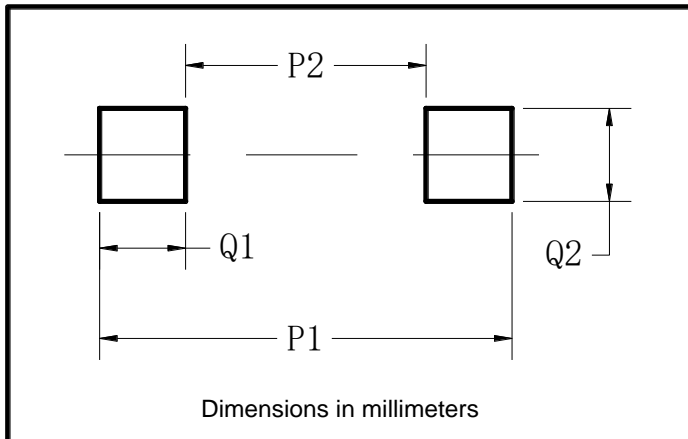
# SSL54 THRU SSL510

## ■ Outline Dimensions



DO-214AB (SMC)		
Dim	Min	Max
A	6.60	7.11
B	2.85	3.27
C	5.59	6.22
D	7.75	8.13
E	1.99	2.61
F	0.15	0.31
G	0.76	1.52
H	0.05	0.20

## ■ Suggested pad layout



Dim	Typ
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82



## SSL54 THRU SSL510

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