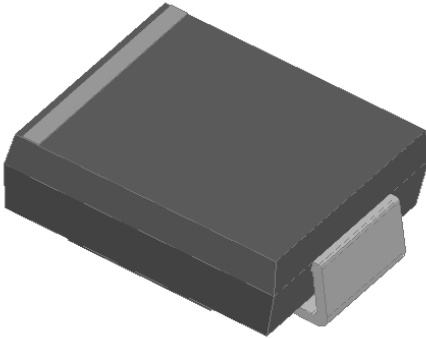


## Surface Mount Schottky Rectifier

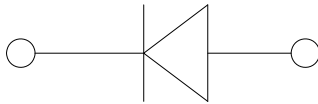


### Features

- Guardring for overvoltage protection
- Low power losses
- Extremely fast switching
- 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	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520
Device marking code			SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	20	30	40	50	60	80	100	150	200
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								
Storage Temperature	T <sub>stg</sub>	°C	-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	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =5.0A	0.55		0.60	0.70		0.85		0.90	
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	mA	T <sub>a</sub> =25°C	0.2			0.1					
			T <sub>a</sub> =100°C	20			5					



# SS52 THRU SS520

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

PARAMETER		SYMBOL	UNIT	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520
Thermal Resistance	Junction to ambient	R <sub>θJ-A</sub>	°C/W	60 <sup>(1)</sup>								
	Junction to lead	R <sub>θJ-L</sub>		20 <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
SS52~SS520	F1	Approximate 0.251	3000	6000	42000	13" reel

## ■ Characteristics (Typical)

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

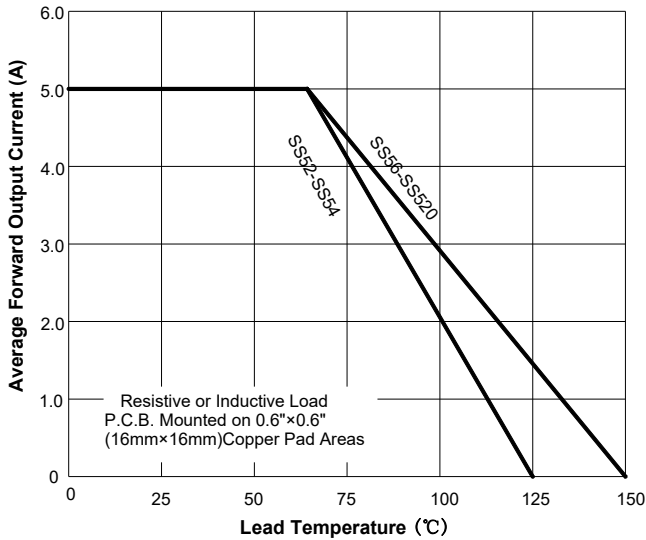


FIG.2: Forward Surge Current Capability

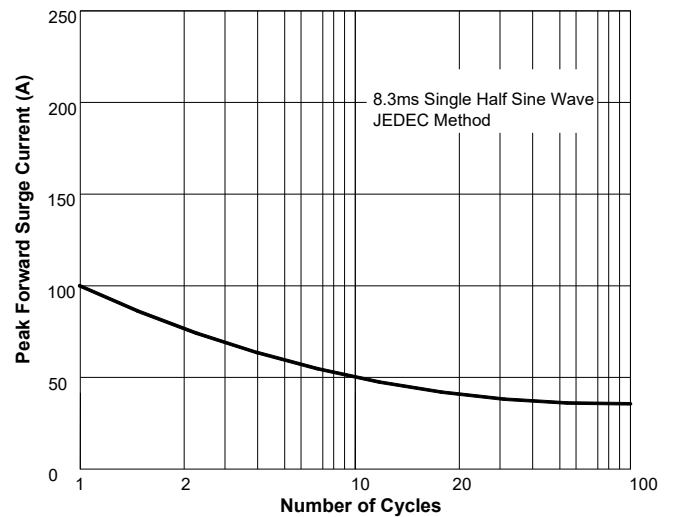


FIG.3: Forward Voltage

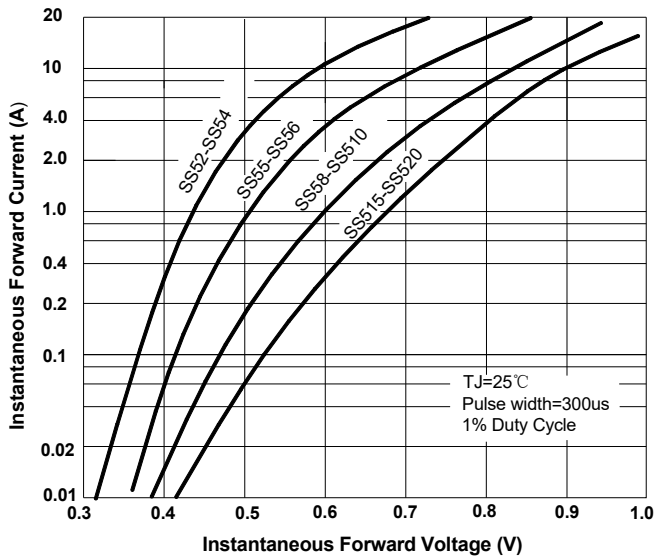
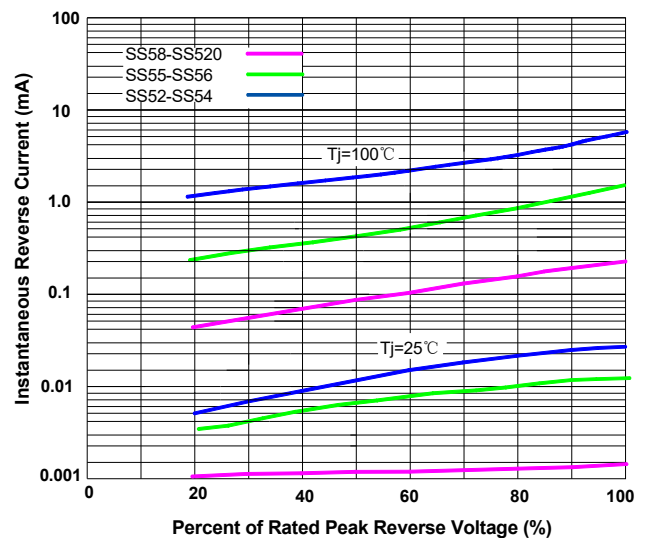
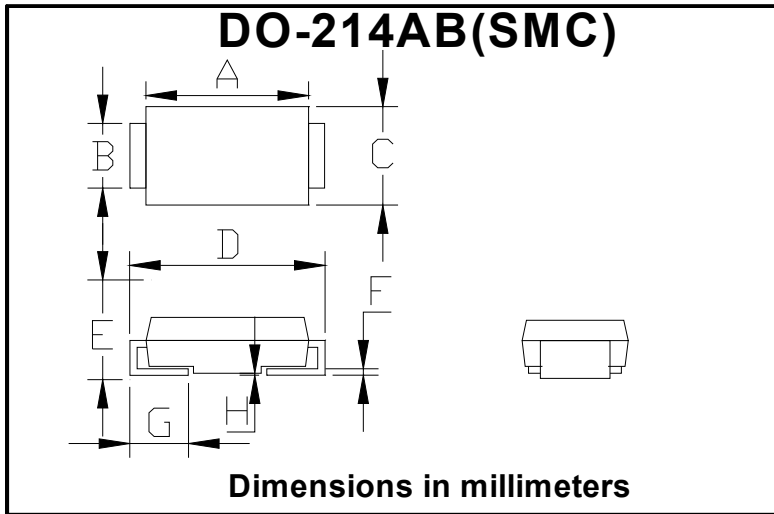


FIG.4: Typical Reverse Characteristics

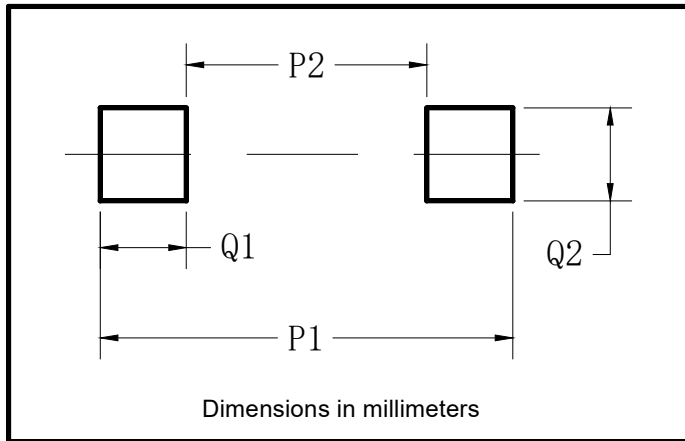


## ■ Outline Dimensions



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	0.10	0.20

## ■ Suggested pad layout



Dim	Min
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82



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