

**SS52 THRU SS520**  
**SCHOTTKY RECTIFIERS**



**VOLTAGE** 20~200 Volts **CURRENT** 5.0 Amperes **Marking**

**FEATURES**

- Power pack
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High forward surge capability
- High frequency operation
- Solder bath temperature 275°C maximum, 10s, per JESD22-B106 (for DO-214AA)

**MECHANICAL DATA**

- Case: JEDEC DO-214AA(SMB) molded plastic body.
- Molding compound meets UL94V-0 flammability rating
- Terminals: Lead solderable per J-STD-002 and JESD22-B102
- Polarity: As marked

**TYPICAL APPLICATIONS**

- For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications

**DO-214AA(SMB)**



Remark:

- (1).White on the left =Polarity mark;
- (2).NH=niuhang trademark;
- (3).XXXXX=Data code;
- (4).SS5XX=Modle.

**Maximum Ratings and Electrical Characteristics**(Ratings at 25°C ambient temperature unless otherwise specified )

Parameter	Symbol	SS52	SS54	SS55	SS56	SS58	SS510	SS515	SS520	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	40	50	60	80	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	14	21	35	42	56	70	105	150	V
Maximum DC blocking voltage	$V_{DC}$	20	40	50	60	80	100	150	200	V
Maximum average forward rectified current(see fig.1)	$I_{F(AV)}$	5.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	$I_{FSM}$	150								A
Maximum instantaneous forward voltage at 10.0 A per leg	$V_F$	0.55	0.7		0.85		0.95		V	
Maximum DC reverse current TA=25°C	$I_{RRM}$	0.5						0.2		mA
at rated DC blocking voltage TA=100°C		30			10		2.0			
Typical junction capacitance (NOTE 1)	$C_J$	200								pF
Operating junction and Storage temperature range	$T_J$	-65 to +125				-65 to +150				°C
Storage temperature range	$T_{STG}$	-65 to +150								

**Thermal Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified )

Parameter	Symbol	DO-214AA(SMB)	Unit
Typical thermal resistance(NOTE 2)	$R_{\theta JA}$	55	°C/W
	$R_{\theta JL}$	17	

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
2.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

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**RATING AND CHARACTERISTIC CURVES**

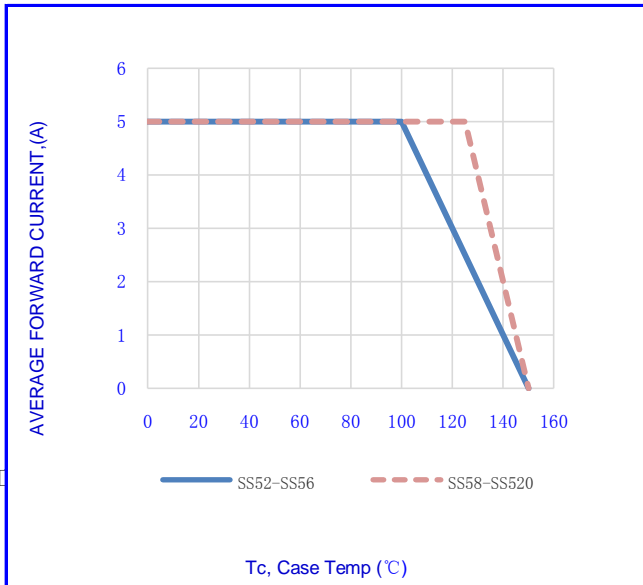


Fig.1- FORWARD CURRENT DERATING CURVE

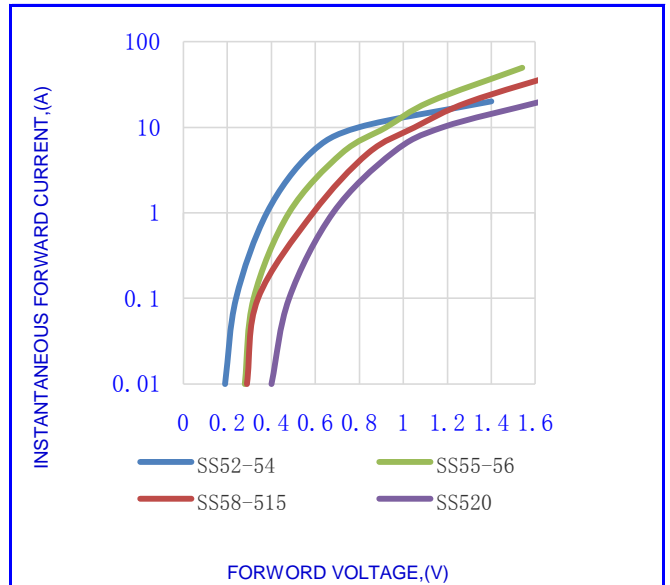


Fig.2-TYPICAL INSTANTANEOUS FORWARD

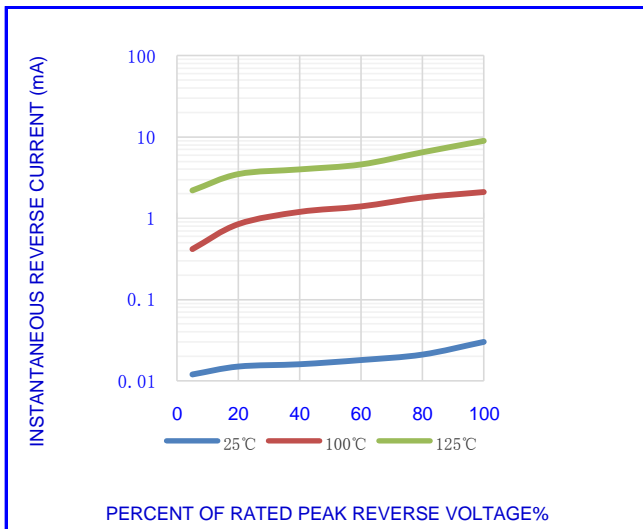


Fig.3-TYPICAL REVERSE CHARACTERISTICS

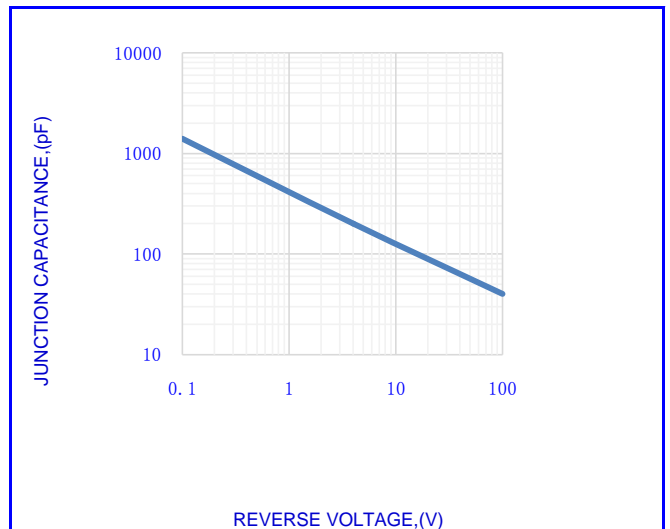


Fig.4- TYPICAL JUNCTION CAPACITANCE

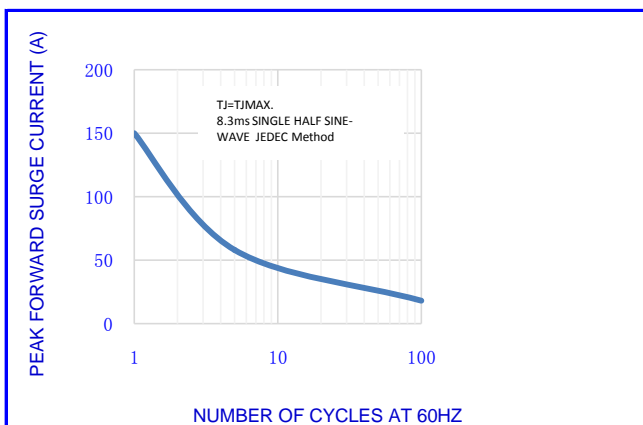
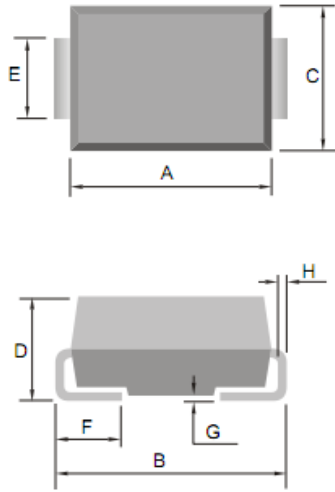


Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

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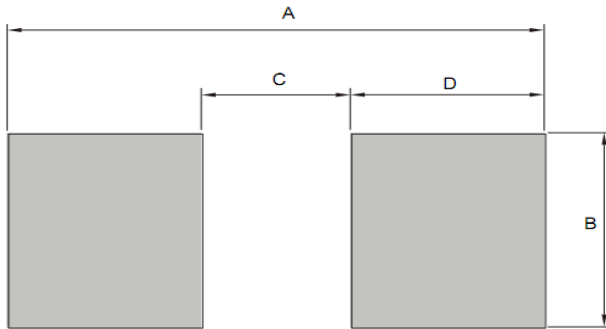
**OUTLINE DRAWINGS**



OUTLINE DIMENSIONS						
DIM	MILLIMETERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.060	-	4.700	0.160	-	0.185
B	5.080	-	5.590	0.200	-	0.220
C	3.300	-	3.940	0.130	-	0.155
D	2.130	-	2.440	0.083	-	0.096
E	1.910	-	2.110	0.075	-	0.083
F	0.760	-	1.270	0.030	-	0.050
G	0.051	-	0.203	0.002	-	0.008
H	0.152	-	0.305	0.006	-	0.012

DO-214AA(SMB)

**MOUNTING PAD LAYOUT**



OUTLINE DIMENSIONS						
DIM	MILLIMETERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		6.340			0.25	
B		2.720			0.107	
C		1.760			0.069	
D		2.290			0.09	

**Packing Information**

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Carton Size LxWxH(mm)	Quantity (reel/carton)
DO-214AA(SMB)	T/R	Φ330	3000	364x364x360	16