SS34 THRU SS320

SCHOTTKY RECTIFIERS

VOLTAGE:	40~200 Volts	CURRENT:	3.0 Amperes	DO-214AA(SMB)	Marking and Polarity

FEATURES

- Low Forward Voltage Drop for high efficiency
- Low leakage current for high reliability
- High forward surge capability for high reliability

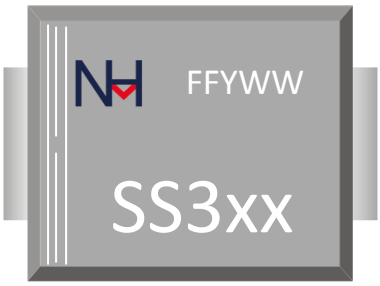
MECHANICAL DATA

- **Terminals:** Plated Leads Solderable per MIL-STD-202, Method 208
- **Mounting Position:** Any
- **Lead Free:** Lead Free Finish, RoHS Compliant
- **Weight:**App. 0.095 grams（0.0034 ounce)

TYPICAL APPLICATIONS

- For use in high frequency inverters ,

  DC/DC converters,LED driver etc. applications



Remark:

①. NH=niuhang trademark

②. FF=Product line,According to actual changes;

YWW=Periodic code,According to actual changes;

③. SS3xx=Modle,xxx=4,45,6,8,10,15,20

④. White band denotes cathode

Maximum Ratings(Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	Symbol	SS34	SS345	SS36	SS38	SS310	SS315	SS320	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	45	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	32	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	40	45	60	80	100	150	200	V
Maximum average forward rectified current(see fig.1)	$IF_{(AV)}$	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	80							A
Current Squared Time Per Diode(t<8.3ms)	I^2t	26.56							A^2sec

Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	Test Conditions		Symbol	SS34	SS345	SS36	SS38	SS310	SS315	SS320	Unit
Maximum Forward Voltage(Note 1)	Ta=25℃	IF= 3.0 A	V_F	0.55		0.70	0.80		0.90		V
Maximum instantaneous reversecurrent at rated DC blockingvoltage (Note 1)	Ta=25℃	VR= V_{RRM}	I_{RRM}	100		80	50		10		uA
	Ta=125℃	VR= 80%*V_{RRM}		10		8	5		3		mA
Typical junction capacitance	4V,1MHz		C_J	250		200	150		100		pF

Thermal Characteristcs (Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	Symbol	SS34	SS345	SS36	SS38	SS310	SS315	SS320	Unit
Operating junction and Storage temperature range	T_J	-55 to 125			-55 to 150		-55 to 175		℃
Storage temperature range	T_{STG}	-55 to 125			-55 to 150		-55 to 175		℃
Typical thermal resistance (Note 2)	$R_{\theta JA}$	60							℃/W
	$R_{\theta JC}$	20							℃/W

Note: 1.Pulse width < 300 uS, Duty cycle < 2%

2.Mounted on P.C.B. with 0.3" x 0.3" (7.62 mm x 7.62 mm) copper pad areas

SS34 THRU SS320

SCHOTTKY RECTIFIERS

RATINGANDCHARACTERISTICCURVES

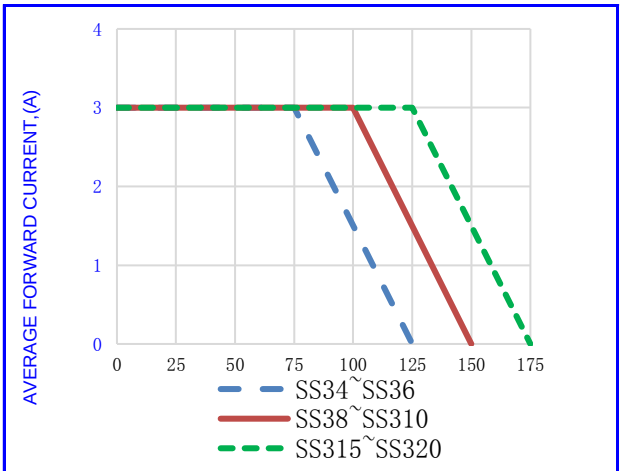


Fig.1-FORWARD CURRENT DERATING CURVE

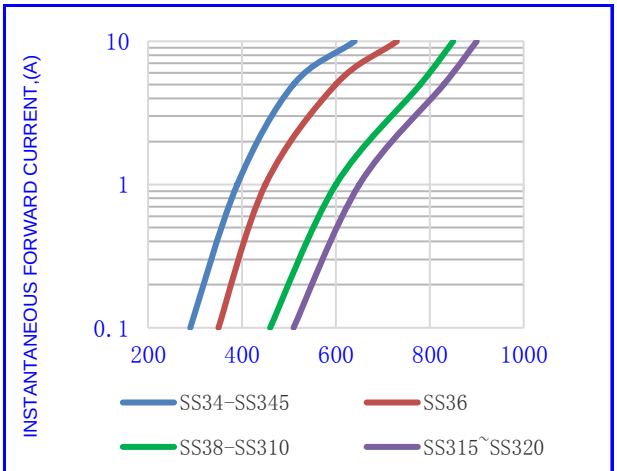


Fig.2- TYPICAL INSTANTANEOUS FORWARD

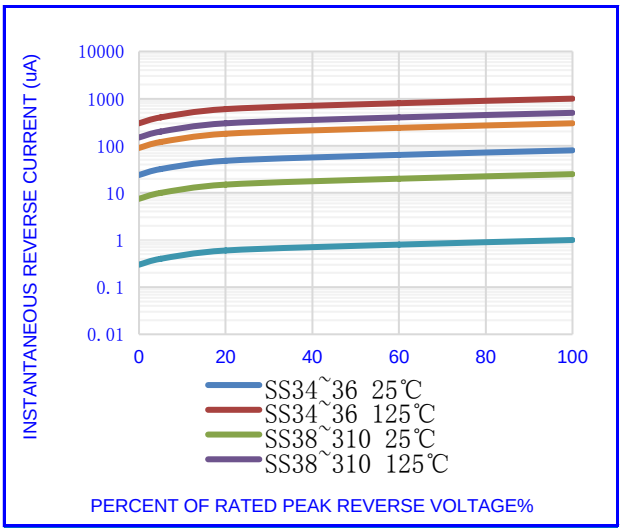


Fig.3- TYPICAL REVERSE CHARACTERISTICS

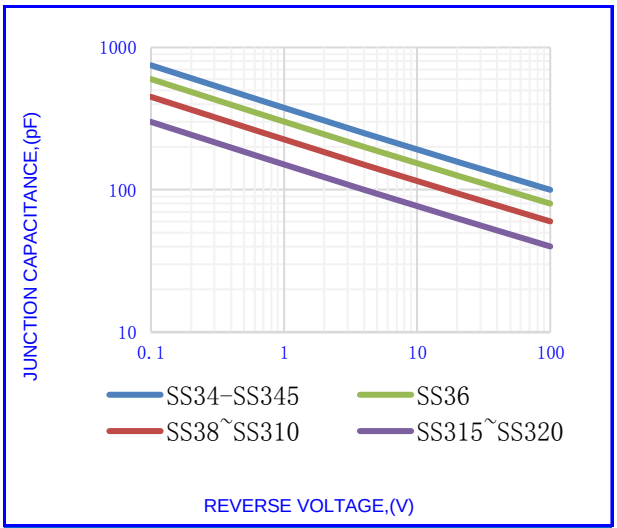


Fig.4-TYPICAL JUNCTION CAPACITANCE

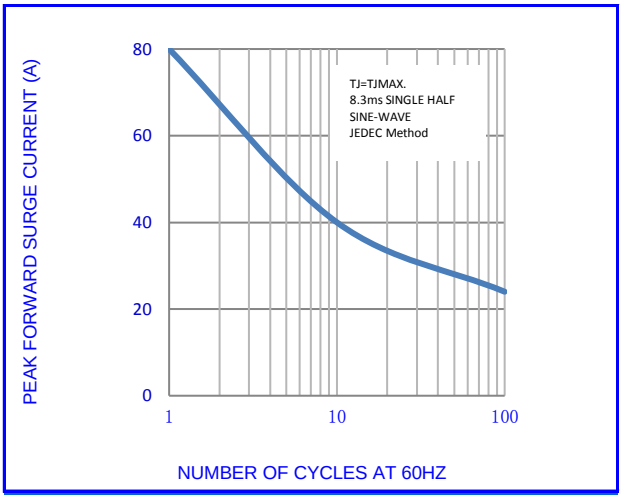


Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

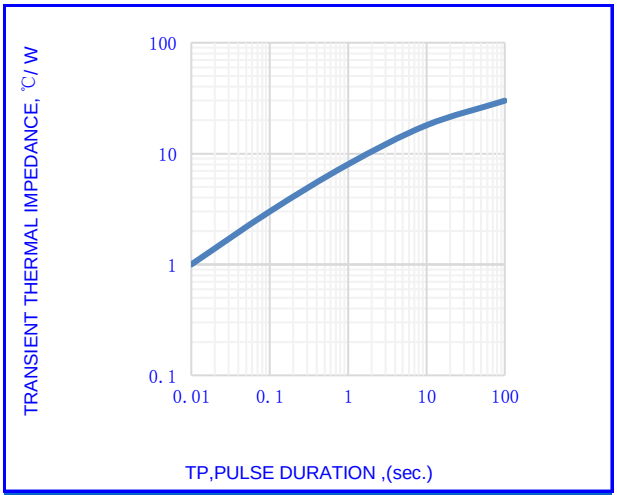
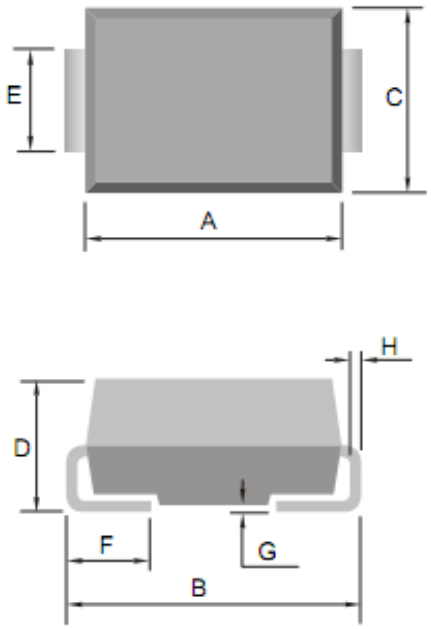


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

SS34 THRU SS320

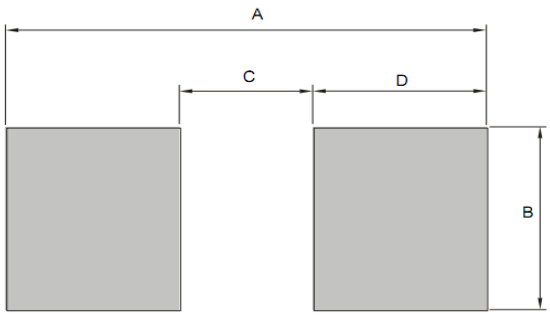
SCHOTTKY RECTIFIERS

OUTLINE DRAWINGS — DO-214AA(SMB)



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

RECOMMEDNED LAYOUT DRAWINGS — DO-214AA(SMB)



RECOMMEDNED MOUNTING PAD DIMENSIONS						
Dim.	Milimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	-	6.340	-	-	0.250	-
B	-	2.720	-	-	0.107	-
C	-	1.760	-	-	0.069	-
D	-	2.290	-	-	0.090	-

PACKING INFORMATION — DO-214AA(SMB)

Package Method	Reel Size (mm)	Quantity (pcs/reel)	Inner Box Size L×W×H(mm)	Quantity (pcs/Inner Box)	Carton Size L×W×H(mm)	Quantity (pcs/carton)
Tape Reel	Φ330	3000	340×340×45	6000	360×360×470	60000

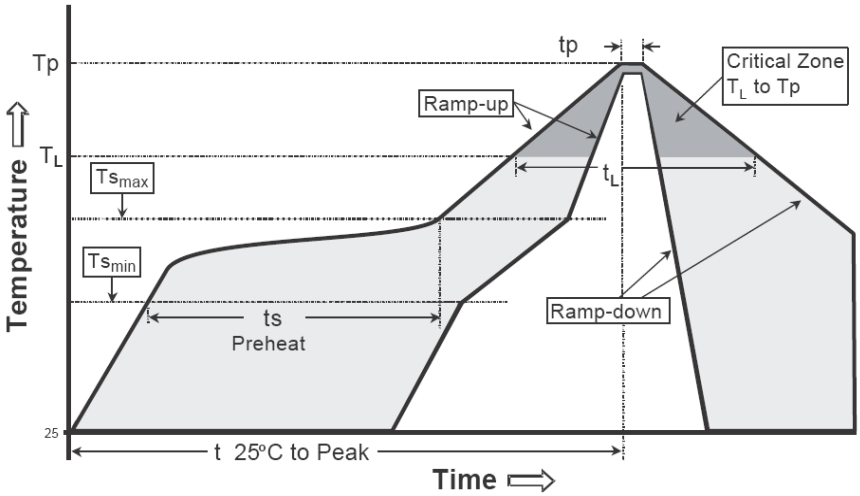
SS34 THRU SS320

SCHOTTKY RECTIFIERS

Recommended wave soldering condition

Product	Peak Temperature	Soldering Time
Pb-free devices	260 +0/-5 °C	5 +1/-1 seconds

Recommended temperature profile for IR reflow



Profile feature	Sn-Pb eutectic Assembly	Pb-free Assembly
Average ramp-up rate (Tsmax to Tp)	3°C/second max.	3°C/second max.
Preheat −Temperature Min(TS min) −Temperature Max(TS max) −Time(ts min to ts max)	 100°C 150°C 60-120 seconds	 150°C 200°C 60-180 seconds
Time maintained above: −Temperature (TL) − Time (tL)	 183°C 60-150 seconds	 217°C 60-150 seconds
Peak Temperature(TP)	240 +0/-5 °C	260 +0/-5 °C
Time within 5°C of actual peak temperature(tp)	10-30 seconds	20-40 seconds
Ramp down rate	6°C/second max.	6°C/second max.
Time 25 °C to peak temperature	6 minutes max.	8 minutes max.

Note : All temperatures refer to topside of the package, measured on the package body surface.

SS34 THRU SS320

SCHOTTKY RECTIFIERS

Disclaimer

- Reproducing and modifying informatiom of the document is prohibited without permission from niuhang Electronics co., LTD
- Niuhang Electronics co., LTD. reserves the rights to make changes of the content herein the document anytime without notification.
- Niuhang Electronics co., LTD. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Niuhang Electronics co., LTD. does not assume any and all implied warranties, including warranties of fitness for particular purpose,non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Niuhang Electronics co., LTD.makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining,such as medical instruments.transportation equipment,aerospae machinery et cetera.Customers usin or selling these products for use in such applications do so at their own rish and agree to fully indemnify Niuhang Electronics co., LTD.for any damages resulting resulting from such improper use or sale.
- When the appearance of the product and chip size does not change, in order to product the customer.
quality, change the internal structure and the production process Niuhang can not notify

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Schottky Diodes & Rectifiers ***category:***

Click to view products by NH ***manufacturer:***

Other Similar products are found below :

MA4E2039 MMBD301M3T5G RB160M-50TR D83C BAS16E6433HTMA1 BAS 3010S-02LRH E6327 BAT 54-02LRH E6327 NRVBAF360T3G NSR05F40QNXT5G NTE555 JANS1N6640 SS3003CH-TL-E GA01SHT18 CRS10I30A(TE85L,QM MBRA140TRPBF MBRB30H30CT-1G BAT 15-04R E6152 JANTX1N5712-1 DMJ3940-000 SB007-03C-TB-E NRVBB20100CTT4G NRVBM120LT1G NTSB30U100CT-1G CRG04(T5L,TEMQ) ACDBA1100LR-HF ACDBA1200-HF ACDBA240-HF ACDBA3100-HF CDBQC0530L-HF ACDBA260LR-HF ACDBA1100-HF 10BQ015-M3/5BT NRVBM120ET1G VSSB410S-M3/5BT 1N5819T-G PDS1040Q-13 B160BQ-13-F SDM05U20CSP-7 BAS 70-07 E6433 B140S1F-7 HSM560Je3/TR13 DDB2265-000 ZHCS506QTA HSM190Je3/TR13 B330AF-13 ACDBUC0230-HF SDM1U100S1F-7 MBR10200CTF-G1 CDLL5712 DMF2822-000