

SR10100SL

SUPER LOW VF SCHOTTKY RECTIFIERS



VOLTAGE	100 Volts	CURRENT	10.0 Amperes	DO-27(DO-201AD)	Marking and Polarity
----------------	-----------	----------------	--------------	------------------------	-----------------------------

FEATURES

Plastic package has Underwriters Laboratory Flammability Classification 94V-0
 Metal silicon junction ,majority carrier conduction
 Guard ring for overvoltage protection
 Low power loss ,high efficiency
 For use in low voltage ,high frequency inverters,
 free wheeling ,and polarity protection applications
 High temperature soldering guaranteed:260 C/10 seconds at terminals
 Component in accordance to RoHS 2002/95/EC and
 WEEE 2002/96/EC

MECHANICAL DATA

Case: JEDEC DO-201AD molded plastic body
 Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
 Mounting Position: Any
 Weight:App. 1.05 grams (0.0353 ou)

TYPICAL APPLICATIONS

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

SR10100SL
NH FFDDK

Remark:
 ①. SR10100SL=Modle No.
 ②. NH=niuhang trademark
 ③. FFDDK=Inernal control code,According to actual changes
 ④. White band denotes cathode

Maximum Ratings (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	SR10100SL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward rectified current(see fig.2)	$I_{F(AV)}$	10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	100	A

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	SR10100SL				Unit	
		Test Conditions		Min.	Typ.		Max.
Maximum instantaneous forward voltage (Note 1)	V_F	TA=25°C	IF=10A	--	0.67	0.72	V
Maximum instantaneous reversecurrent at rated DC blockingvoltage (Note 1)	I_{RRM}	VR=150	TA=25°C	--	--	80	uA
			TA=125°C	--	--	20	mA
Typical junction capacitance	C_J	4V,1MHz		340			pF

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

Parameter	Symbol	SR10100SL	Unit
Operating junction	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	
Typical thermal resistance (Note 2)	$R_{\theta JA}$	25	°C/W
	$R_{\theta JL}$	8	

Note: Pulse width < 300 uS, Duty cycle < 2%
 Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375"(9.5mm)lead length,Polymide PCB, 2 oz Copper.
 Cathode pad dimensions 18.8x14.4mm , Anode pad dimensions- (5.6x14.4mm)

SR10100SL

SUPER LOW VF SCHOTTKY RECTIFIERS



RATING AND CHARACTERISTIC CURVES

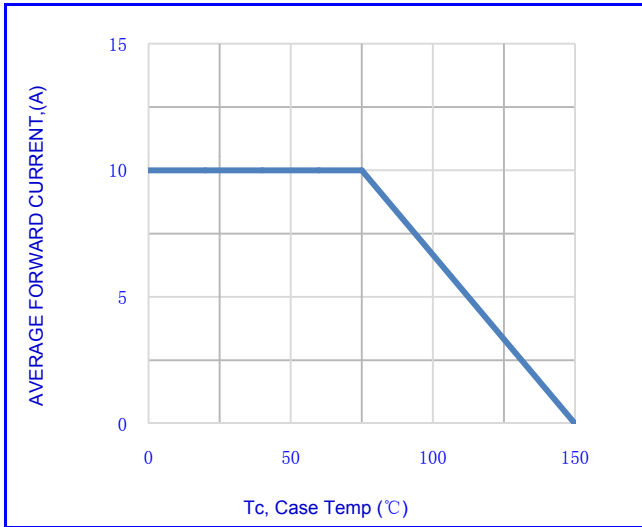


Fig.1- FORWARD CURRENT DERATING CURVE

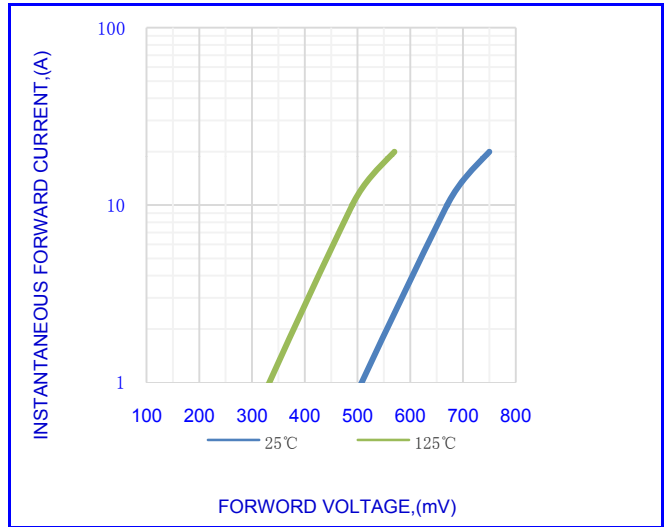


Fig.2-TYPICAL INSTANTANEOUS FORWARD

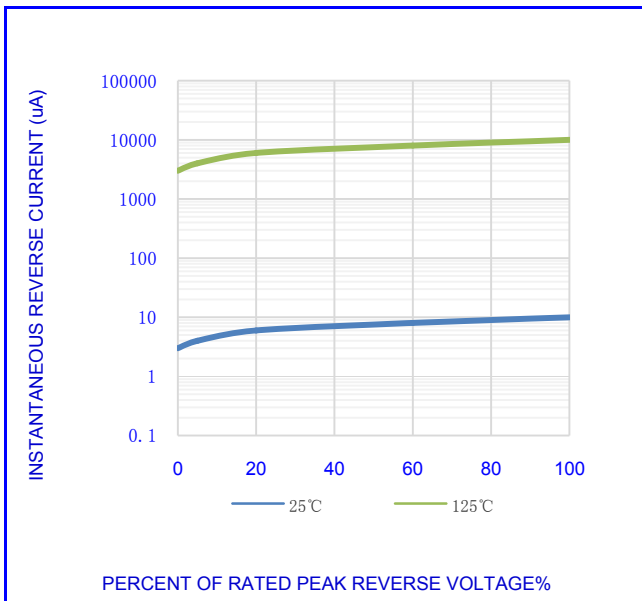


Fig.3-TYPICAL REVERSE CHARACTERISTICS

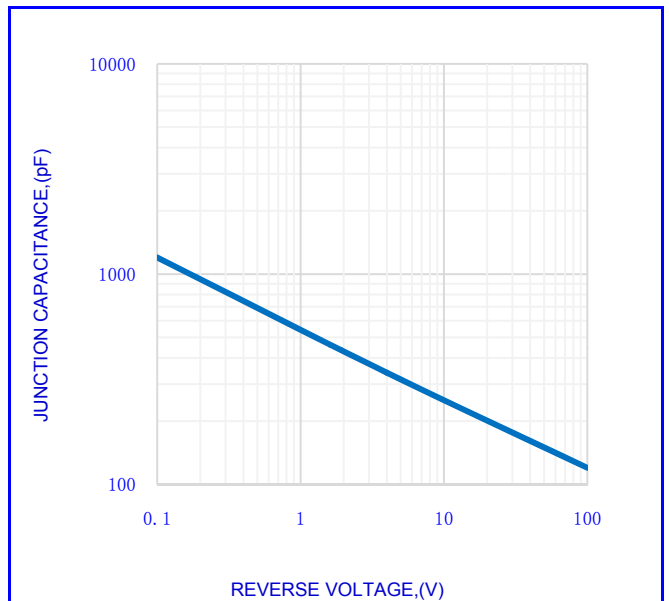


Fig.4- TYPICAL JUNCTION CAPACITANCE

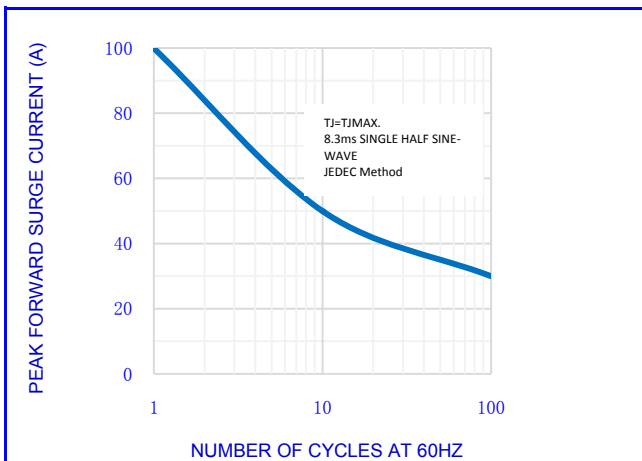


Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

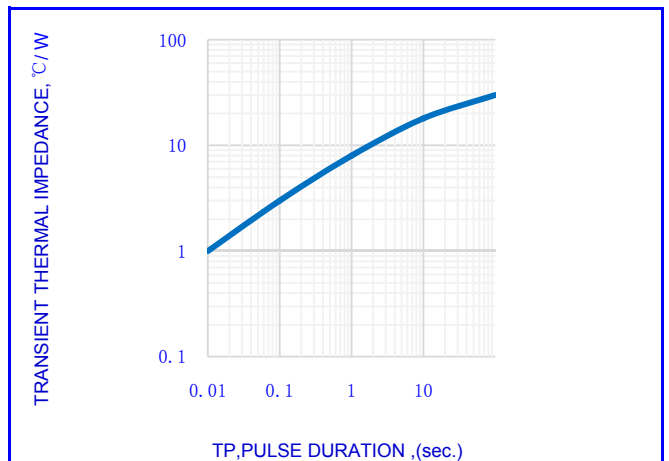


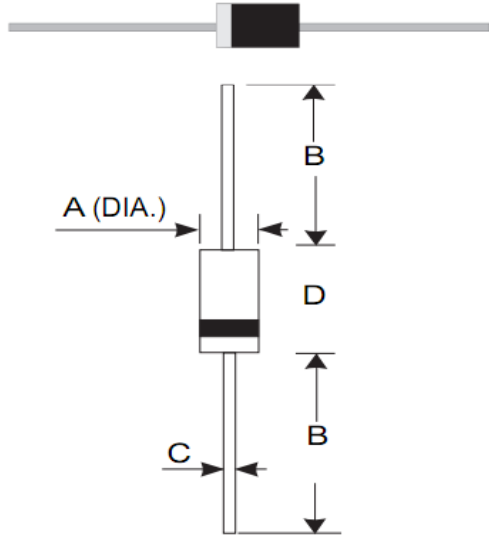
Fig.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

SR10100SL

SUPER LOW VF SCHOTTKY RECTIFIERS



OUTLINE DRAWINGS



OUTLINE DIMENSIONS

DIM	MILLIMETERS			INCHES		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.9	-	5.6	0.193	-	0.220
B	24.5	-	26.4	0.965	-	1.039
C	0.9	-	1.3	0.035	-	0.051
D	7.2	-	9.5	0.285	-	0.374

DO-27(DO-201AD)

Packing Information

Package	Pack	Box Size L×W×H(mm)	Quantity (pcs/box)	Carton Size L×W×H(mm)	Quantity (box/carton)
DO-27(DO-201AD)	B/G	250*75*140	1250	420*280*310	10

SR10100SL

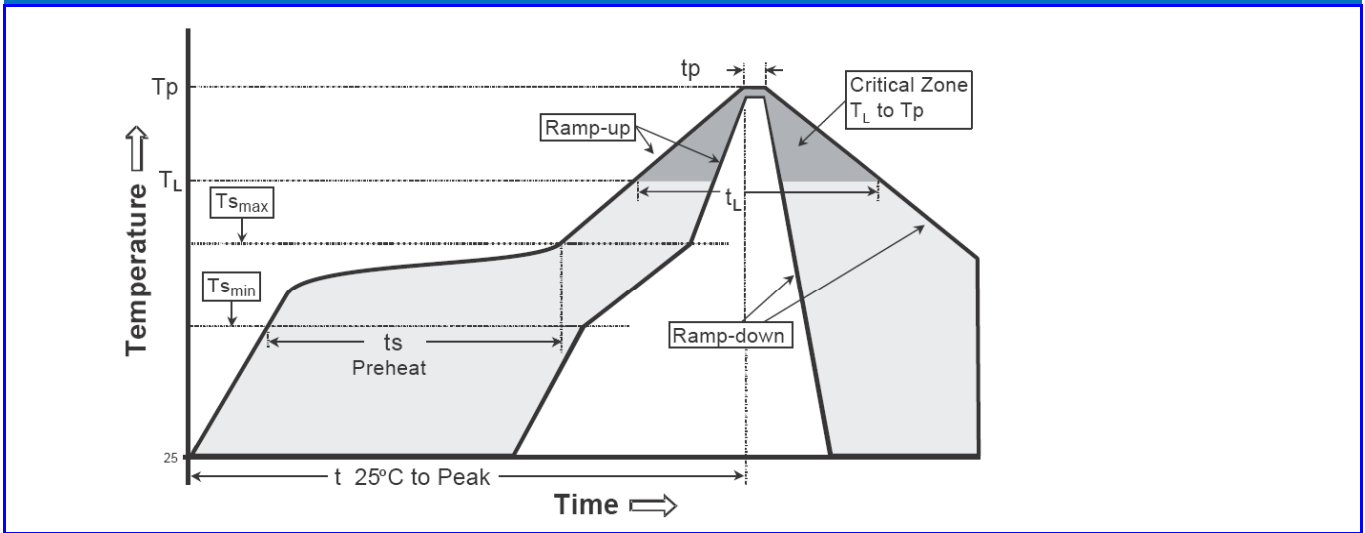
SUPER LOW VF SCHOTTKY RECTIFIERS



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 (T _{smax} to T _p)	3°C/second max.	3°C/second max.
Preheat -Temperature Min(TS min) -Temperature Max(TS max) -Time(t _s min to t _s max)	100°C 150°C 60-120 seconds	150°C 200°C 60-180 seconds
Time maintained above: -Temperature (T _L) - Time (t _L)	183°C 60-150 seconds	217°C 60-150 seconds
Peak Temperature(T _P)	240 +0/-5 °C	260 +0/-5 °C
Time within 5°C of actual peak temperature(t _p)	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.

SR10100SL

SUPER LOW VF SCHOTTKY RECTIFIERS



Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Niu Hang Electronics Co., LTD
- Niu Hang Electronics Co., LTD. reserves the rights to make changes of the content herein the document anytime without notification.
- Niu Hang Electronics Co., LTD. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Niu Hang 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. Niu Hang 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, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Niu Hang Electronics Co., LTD. for any damages 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 Niu Hang 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](#)