

SMB Surface Mount Schottky Barrier Rectifier

Features

- For surface mounted applications
- High forward surge current capability
- Low power loss, high efficiency
- Metal silicon junction, majority carrier conduction
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Reverse Voltage
20-100 V
Forward Current
8 Ampere

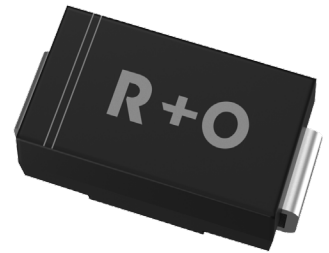
Applications

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

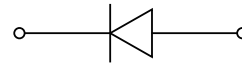
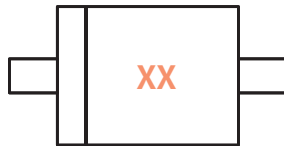
Mechanical Data

- Case: DO-214AA(SMB)
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

DO-214AA(SMB)



Function Diagram



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SK82B	SK84B	SK86B	SK88B	SK810B	SK812B	SK815B	SK820B
Device marking code			SK82B	SK84B	SK86B	SK88B	SK810B	SK812B	SK815B	SK820B
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	20	40	60	80	100	120	150	200
Maximum RMS Voltage	V _{RMS}	V	14	28	42	56	70	84	105	140
Maximum DC blocking Voltage	V _{DC}	V	20	40	60	80	100	120	150	200
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	I _{F(AV)}	A	8.0							
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I _{FSM}	A	150							
Storage temperature	T _{stg}	°C	-55 ~ +150							
Junction temperature	T _j	°C	-55 ~ +125							
Typical Thermal Resistance	R _{θJ-A}	°C/W	18							
	R _{θJ-L}	°C/W	15							

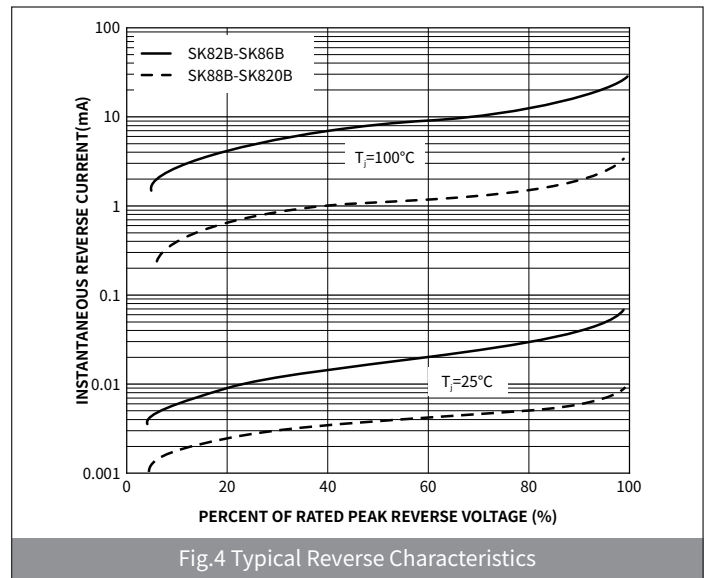
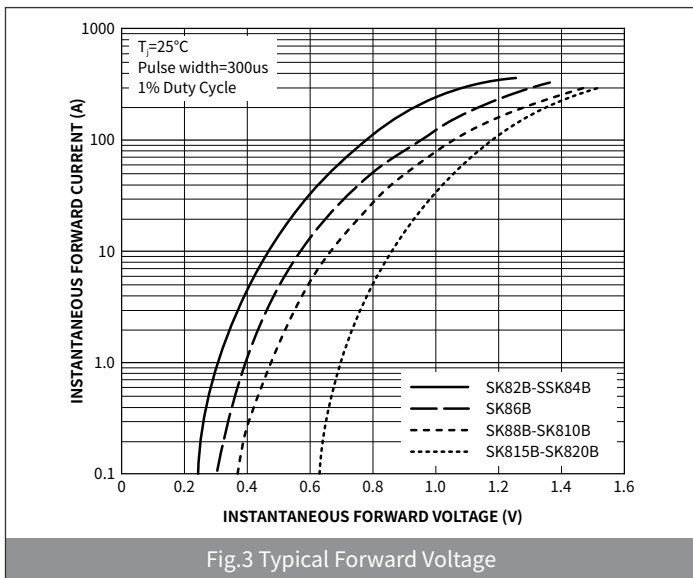
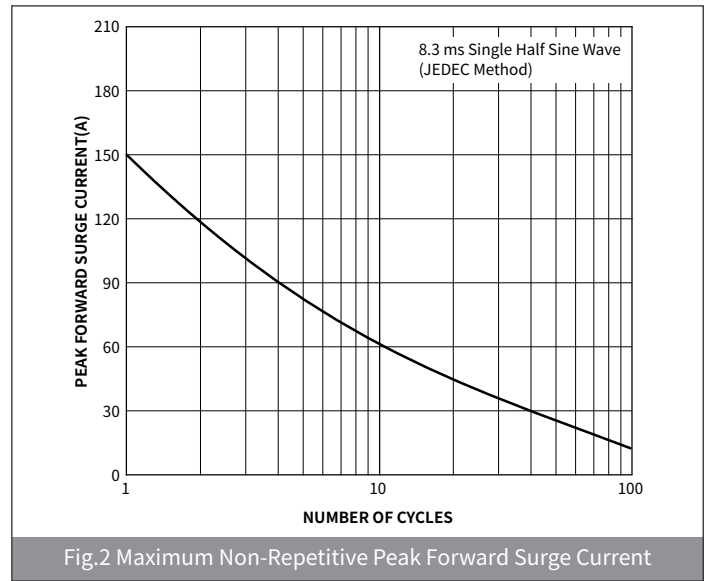
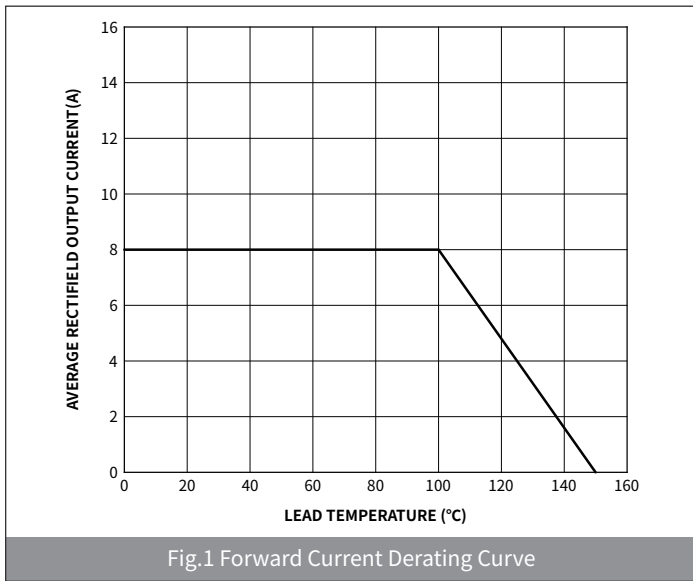
(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

● **Electrical Characteristics** (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SK82B	SK84B	SK86B	SK88B	SK810B	SK812B	SK815B	SK820B
Maximum instantaneous forward voltage	$I_F=8.0A$	V_F	V	0.45	0.55	0.70	0.85	0.85	0.85	0.92	0.92
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	I_{R1}	mA	0.1			0.02				
	$V_R=V_{DC}, T_A=100^\circ C$	I_{R2}		5.0			2.0				
Typical junction capacitance	4.0V DC, 1MHz	C_J	pF	900			700				

● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



SK82B THRU SK810B

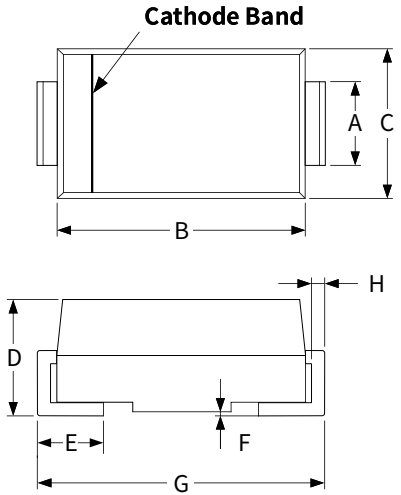
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMB	R3	0.098	3000	6000	48000	13"

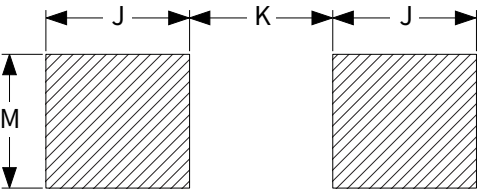
● Package Outline Dimensions (SMB/DO-214AA)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.85	2.21	0.073	0.087
B	4.25	4.85	0.167	0.191
C	3.30	3.94	0.130	0.155
D	2.15	2.65	0.085	0.104
E	0.75	1.52	0.030	0.060
F	-	0.203	-	0.008
G	5.08	5.59	0.200	0.220
H	0.15	0.31	0.006	0.012



● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	2.26	-	0.089	-
J	2.10	-	0.085	-
K	-	2.74	-	0.107



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 [hongjiacheng](#) manufacturer:

Other Similar products are found below :

[MA4E2039](#) [MMBD301M3T5G](#) [HFA35HB60C](#) [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](#)