

Surface Mount Schottky Barrier Rectifier

FEATURES

- Low power loss, high efficiency
- Ideal for automated placement
- Guardring for overvoltage protection
- High surge current capability
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



DO-214AA (SMB)

MECHANICAL DATA

Case: DO-214AA (SMB)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code meet JESD 201 class 2 whisker test

Polarity: Indicated by cathode band

Weight: 0.1 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)												
PARAMETER	SYMBOL	SK 32B	SK 33B	SK 34B	SK 35B	SK 36B	SK 39B	SK 310B	SK 315B	SK 320B	Unit	
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	90	100	150	200	V	
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	63	70	105	140	V	
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	90	100	150	200	V	
Maximum average forward rectified current	I _{F(AV)}	3									A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	70									A	
Maximum instantaneous forward voltage (Note 1) @ 3 A	V _F	0.5			0.75		0.85		0.95		V	
Maximum reverse current @ rated VR T _J =25 °C T _J =100 °C T _J =125 °C	I _R	0.5					0.1					mA
		10			5		-					
		-			-		2					
Voltage Rate of Change (Rated V _R)	dV/dt	10000									V/μs	
Typical thermal resistance	R _{θJL}	23									°C/W	
	R _{θJA}	63										
Operating junction temperature range	T _J	- 55 to +125				- 55 to +150						°C
Storage temperature range	T _{STG}	- 55 to +150									°C	

Note 1: Pulse test with PW=300μs, 1% duty cycle

ORDERING INFORMATION					
PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
SK3xxB (Note 1)	Prefix "H"	R5	Suffix "G"	SMB	850 / 7" Plastic reel
		R4		SMB	3,000 / 13" Paper reel
		M4		SMB	3,000 / 13" Plastic reel

Note 1: "xx" defines voltage from 20V (SK32B) to 200V (SK320B)

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
SK36B R5	SK36B		R5		
SK36B R5G	SK36B		R5	G	Green compound
SK36BHR5	SK36B	H	R5		AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

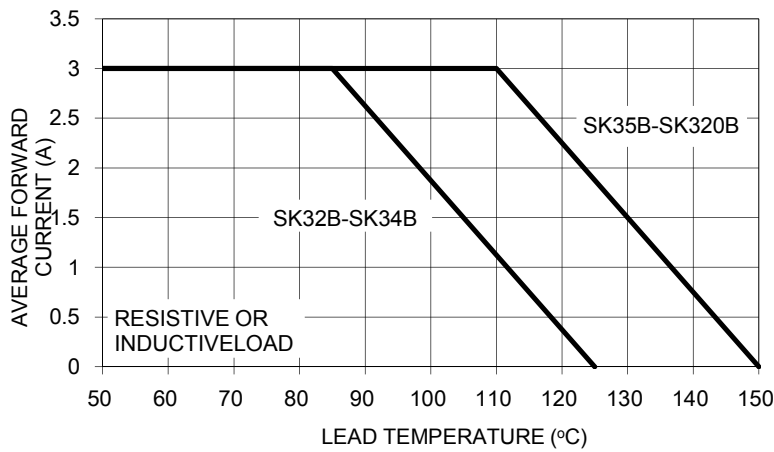


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

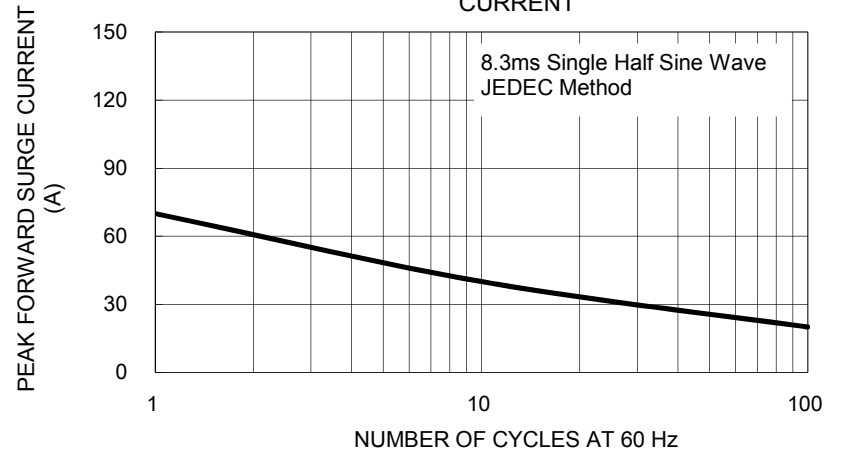


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

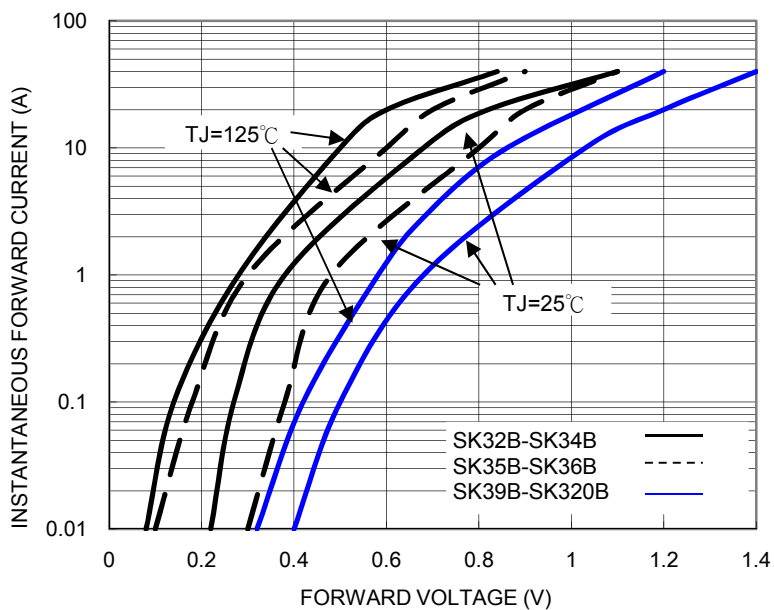


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

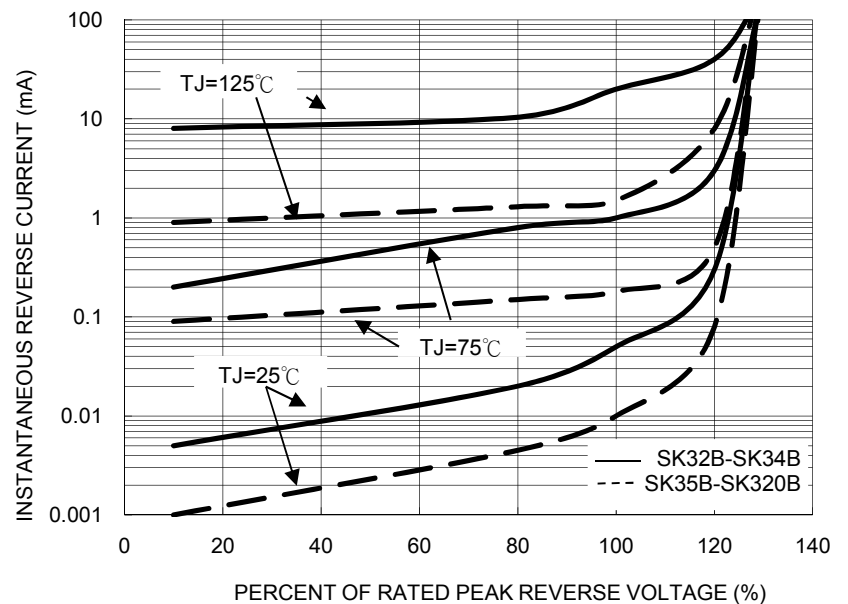


FIG. 5 TYPICAL JUNCTION CAPACITANCE

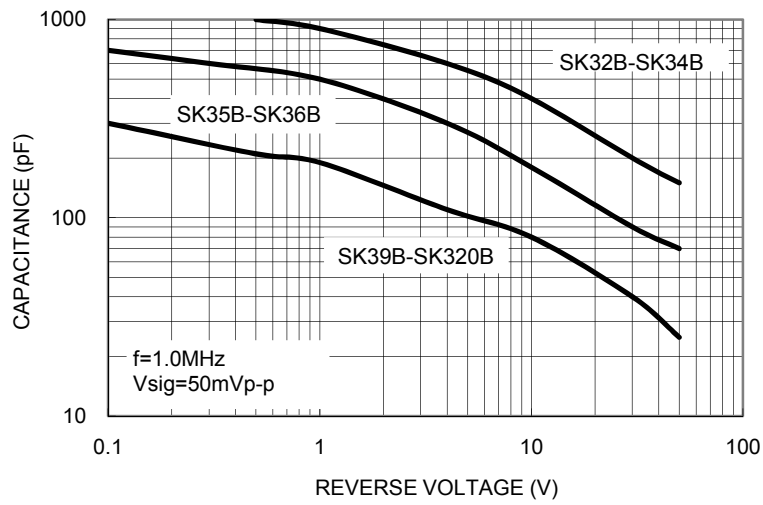
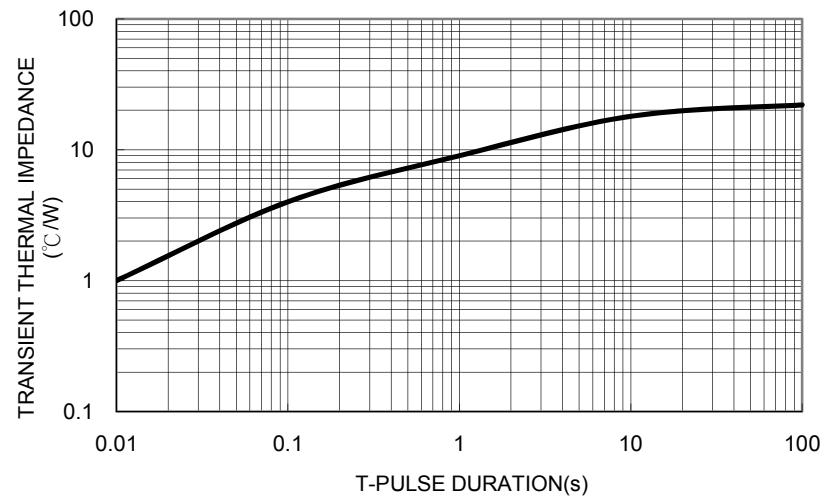
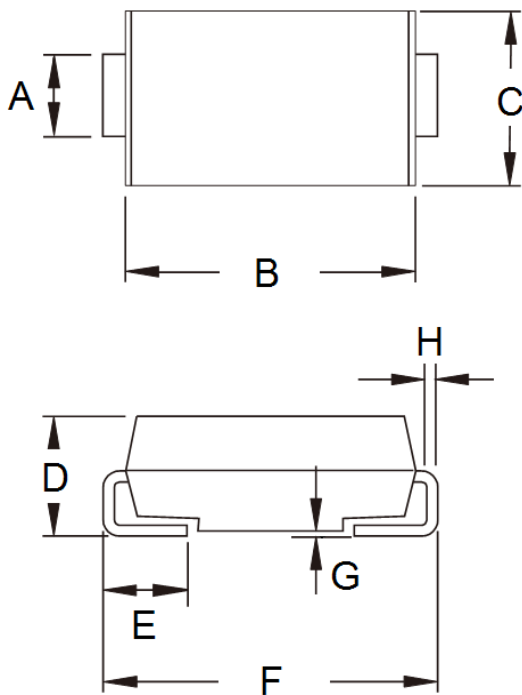


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

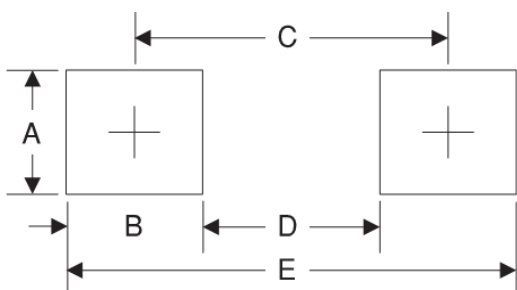


PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.95	2.10	0.077	0.083
B	4.25	4.75	0.167	0.187
C	3.48	3.73	0.137	0.147
D	1.99	2.61	0.078	0.103
E	0.90	1.41	0.035	0.056
F	5.10	5.30	0.201	0.209
G	0.10	0.20	0.004	0.008
H	0.15	0.31	0.006	0.012

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	2.3	0.091
B	2.5	0.098
C	4.3	0.169
D	1.8	0.071
E	6.8	0.268

MARKING DIAGRAM



- P/N = Specific Device Code
- G = Green Compound
- YW = Date Code
- F = Factory Code

Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.

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 [Taiwan Semiconductor](#) manufacturer:

Other Similar products are found below :

[CUS06\(TE85L,Q,M\)](#) [D1FH3-5063](#) [MBR0530L-TP](#) [MBR10100CT-BP](#) [MBR30H100MFST1G](#) [MMBD301M3T5G](#) [PMAD1103-LF](#)
[PMAD1108-LF](#) [RB160M-50TR](#) [RB520S-30](#) [RB551V-30](#) [DD350N18K](#) [DZ435N40K](#) [DZ600N16K](#) [BAS16E6433HTMA1](#) [BAS 3010S-](#)
[02LRH E6327](#) [BAT 54-02LRH E6327](#) [IDL02G65C5XUMA1](#) [NSR05F40QNXT5G](#) [JANS1N6640](#) [SB07-03C-TB-H](#) [SB1003M3-TL-W](#)
[SBAT54CWT1G](#) [SBM30-03-TR-E](#) [SK32A-LTP](#) [SK33A-TP](#) [SK34A-TP](#) [SK34B-TP](#) [SMD1200PL-TP](#) [ACDBN160-HF](#) [SS3003CH-TL-E](#)
[STPS30S45CW](#) [PDS3100Q-7](#) [GA01SHT18](#) [CRS10I30A\(TE85L,QM\)](#) [MBR1240MFST1G](#) [MBRB30H30CT-1G](#) [BAS28E6433HTMA1](#) [BAS](#)
[70-02L E6327](#) [HSB123JTR-E](#) [JANTX1N5712-1](#) [VS-STPS40L45CW-N3](#) [DD350N12K](#) [SB007-03C-TB-E](#) [SB10015M-TL-E](#) [SB1003M3-TL-](#)
[E](#) [SK110-LTP](#) [SK154-TP](#) [SK32A-TP](#) [SK33B-TP](#)