





5.0 Amp. Surface Mount Schottky Barrier Rectifier

DO-214AA (SMB) 	Voltage 20 V to 150 V	Current 5.0 A	
	FEATURES <ul style="list-style-type: none"> • Low profile package • Ideal for automated placement • Low power losses, high efficiency • High surge current capability • Guarding for overvoltage protection • Low forward voltage drop • Solder dip 260°C, 10s • AEC-Q101 qualified • Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC • Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C 		   RoHS COMPLIANT
	MECHANICAL DATA <ul style="list-style-type: none"> • Case: DO-214AA (SMB). Epoxy meets UL 94V-0 flammability rating. • Polarity: Color band denotes cathode end. • Terminals: Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test. • HE3 suffix for high reliability grade, meets JESD 201 class 2 whisker test. 		
	TYPICAL APPLICATIONS Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.		

Maximum Ratings and Electrical Characteristics at 25 °C

		SK52B	SK54B	SK56B	SK510B	SK515B
Marking code		IT	IU	IV	IW	IX
V _{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	20	40	60	100	150
V _{RMS}	Maximum RMS Voltage (V)	14	28	42	70	105
V _{DC}	Maximum DC Blocking Voltage (V)	20	40	60	100	150
I _{F(AV)}	Maximum Average Forward Rectified Current at T _C (See graphic)	5.0 A				
I _{FSM}	Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	120 A				
T _j	Operating Temperature Range	-55°C to +125°C		-55°C to +150°C		
T _{stg}	Storage Temperature Range	-55°C to +150°C				

Electrical Characteristics at Tamb = 25 °C

V _F	Maximum Instantaneous Forward Voltage @ 5.0 A (Note 1)	0.55 V	0.75 V	0.85 V	0.95 V
I _R	Maximum DC Reverse Current T _C = 25 °C (Note 3) at Rated DC Blocking Voltage T _C = 125°C	0.5 mA			0.1 mA
		20 mA	10 mA	2.0 mA	
R _{th(j-c)} R _{th(j-a)}	Typical Thermal Resistance (Note 2)	17 °C/W 75 °C/W			

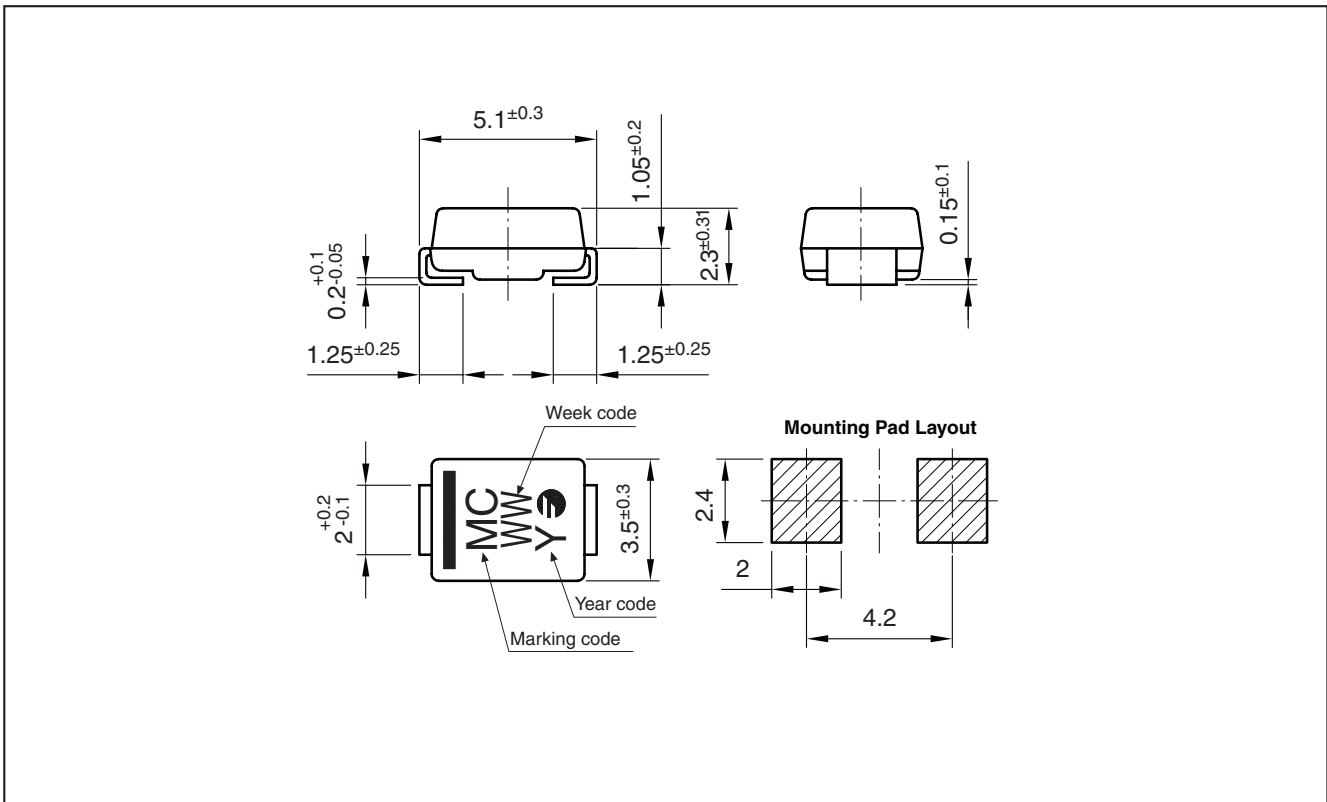
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle
 2. Thermal Resistance from Junction to Case per diode
 3. Pulse test: Pulse width ≤ 40ms

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Ordering information

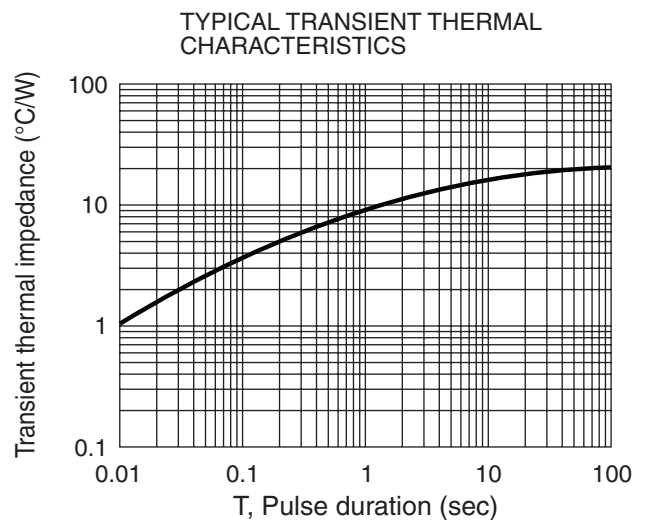
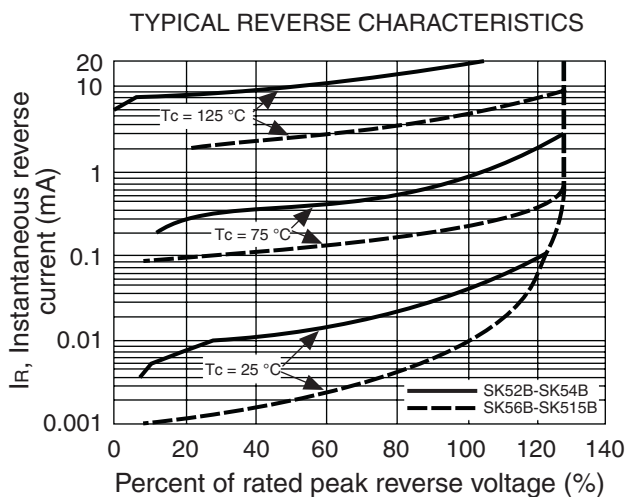
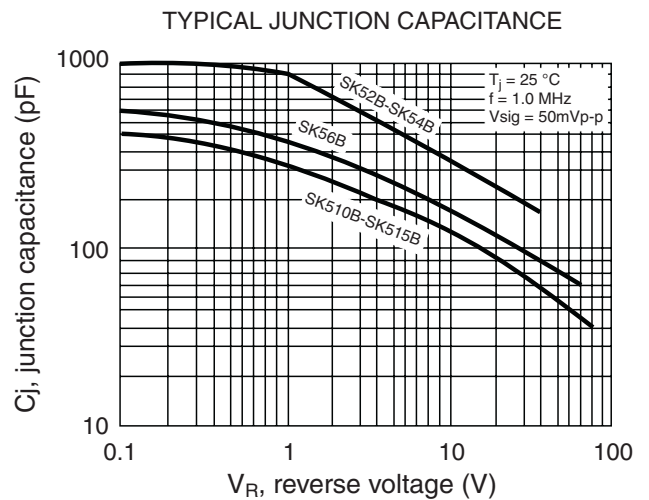
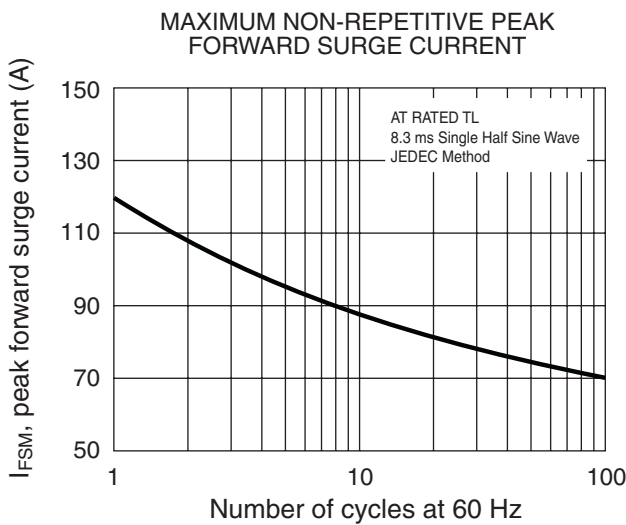
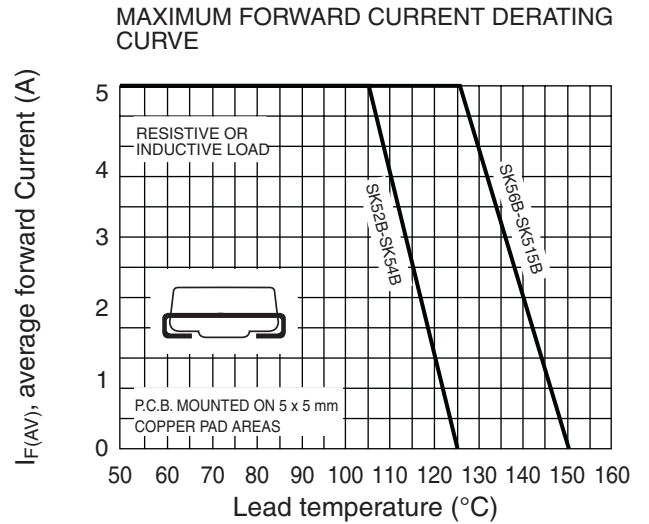
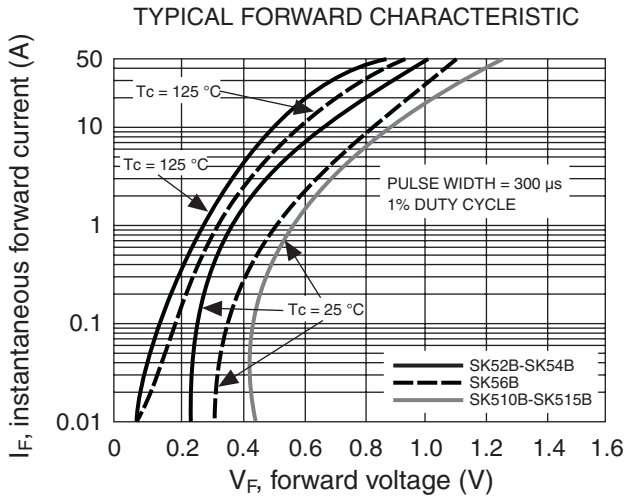
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
SK515B TRTB	TRTB	13" diameter tape and reel	3,000	0.0823
SK515B HE3 TRTB	TRTB	13" diameter tape and reel	3,000	0.0823
SK515B TRTS	TRTS	7" diameter tape and reel	850	0.0823
SK515B HE3 TRTS	TRTS	7" diameter tape and reel	850	0.0823

Package Outline Dimensions: (mm) DO-214AA (SMB)



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Ratings and Characteristics (Ta 25 °C unless otherwise noted)



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Revision History

Date	Revision	Description of Changes
18-Feb-2012	0	Original Data Sheet
24-Mar-2017	1	HE3 Version included

Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

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