




5.0 Amp. Surface Mount Schottky Barrier Rectifier

DO-214AB (SMC) 	Voltage 20 V to 200 V	Current 5.0 A	
	FEATURE <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-214AB (SMC). 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.		

Maximun Ratings and Electrical Characteristics at 25 °C

		SK 52C	SK 54C	SK 56C	SK 510C	SK 515C	SK 520C
Marking Code		IO	IP	IQ	IR	IS	IT
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	20	40	60	100	150	200
V_{RMS}	Maximum RMS Voltage (V)	14	28	42	70	105	140
V_{DC}	Maximum DC Blocking Voltage (V)	20	40	60	100	150	200
$I_{F(AV)}$	Maximum Average Forward Rectified Current at T_L (see graphic)	5.0 A					
I_{FSM}	8.3 ms Peak Forward Surge Current (Jedec Method)	120 A					
T_j	Operating Temperature Range	- 55 to + 150 °C					
T_{stg}	Storage Temperature Range	- 55 to + 150 °C					

Electrical Characteristics at Tamb = 25 °C

V_F	Max. Instantaneous Forward Voltage IF = 5.0 A (Note 1)	0.55 V	0.75 V	0.85 V	0.95 V
I_R	Maximum DC Reverse Current at $T_j = 25\text{ °C}$ at Rated DC Blocking Voltage at $T_j = 125\text{ °C}$ Note 3	0.5 mA		0.3 mA	
		20.0 mA	10.0 mA	5.0 mA	
R_{thj-c}	Typical Thermal Resistance (Note 2)	17 °C/W			
R_{thj-a}		50 °C/W			

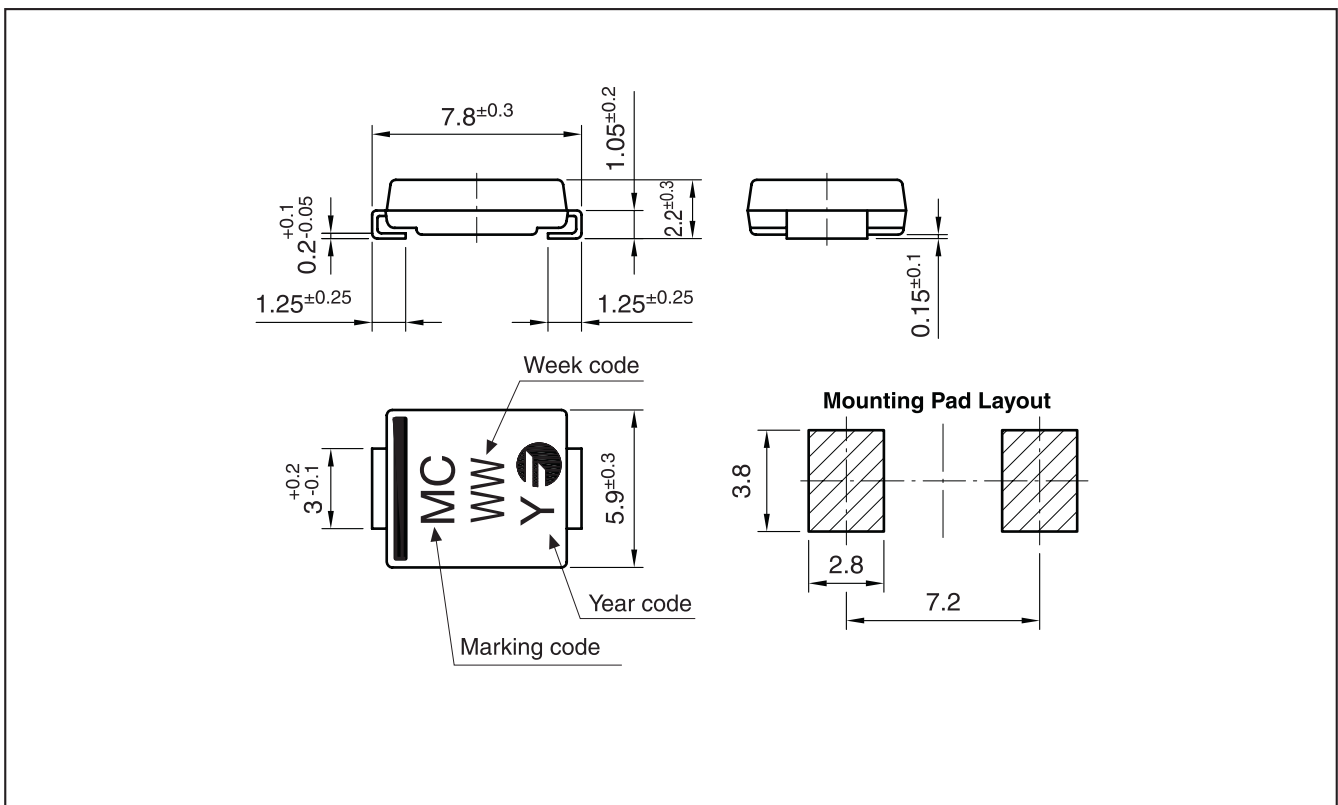
Notes:
 1. Pulse test: 300µ Pulse width, 1% Duty Cycle
 2. Thermal resistance from junction to case per diode
 3. Pulse test: Pulse width ≤ 40ms

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Ordering information

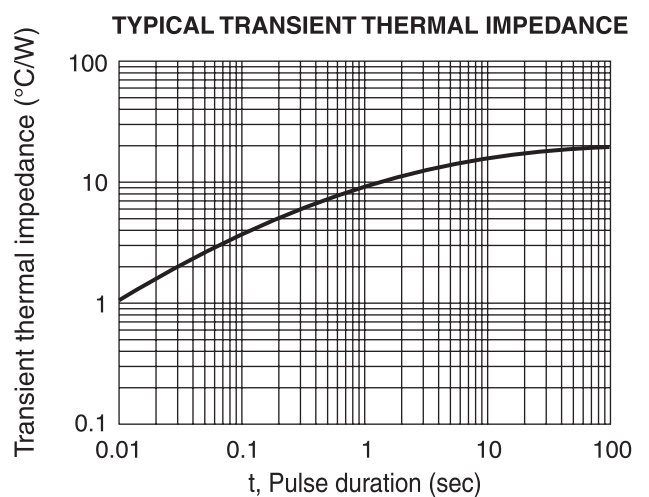
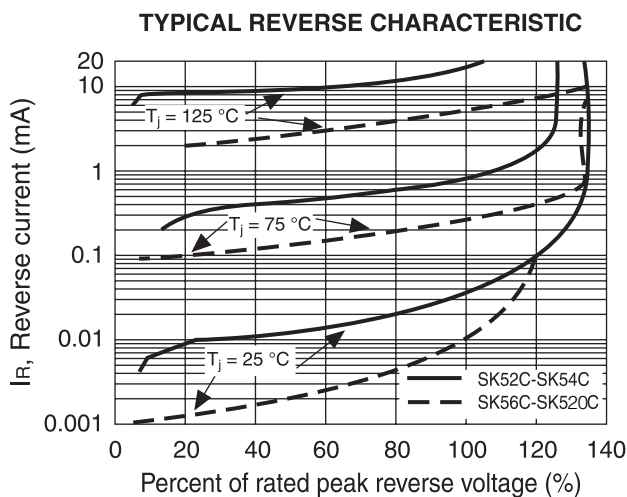
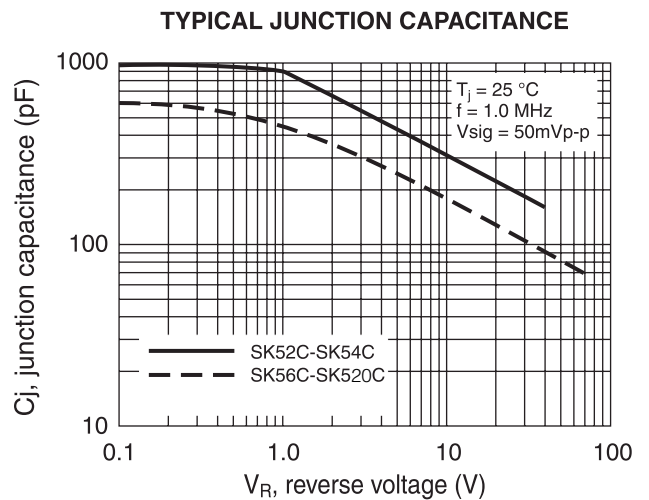
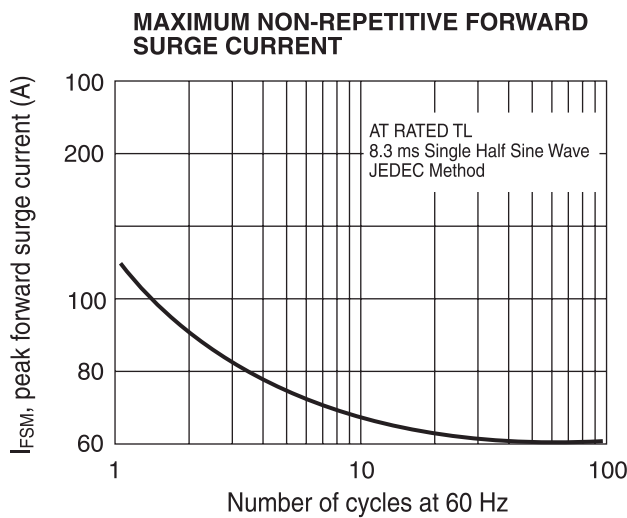
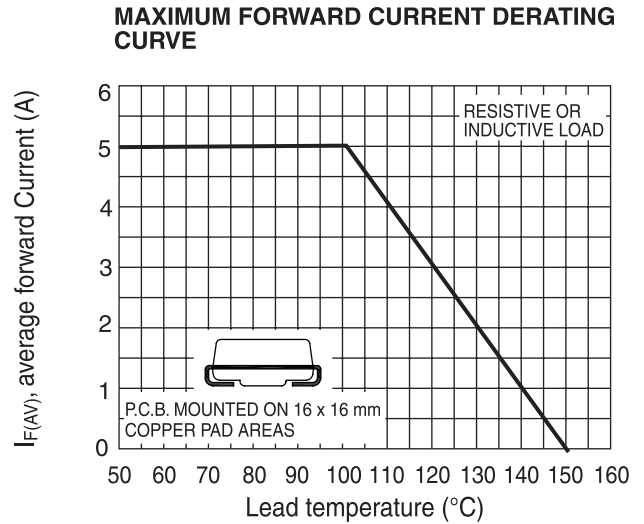
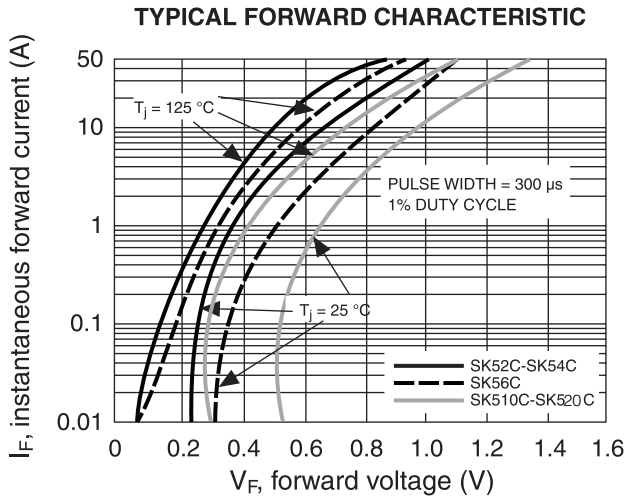
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
SK56C TRTB	TRTB	13" diameter tape and reel	3,500	0.210
SK56C TRTS	TRTS	7" diameter tape and reel	850	0.210

Package Outline Dimensions: (mm) DO-214AB (SMC)



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



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Revision History

DATE	REVISION	DESCRIPTION OF CHANGES
20-Oct-2011	0	Original Data Sheet
12-Feb-2018	1	Included new reference

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