

Schottky Surface Mount Rectifiers

Reverse Voltage: 20 to 200V  
Forward Current: 5.0 Amp

Features

- Low profile package
- For surface mounted applications
- Schottky Barrier Chip
- High forward surge capability
- High temperature soldering guaranteed  
260°C/10 seconds at terminals

Mechanical Data

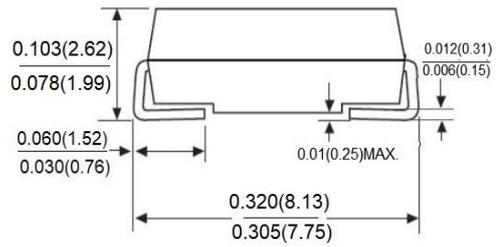
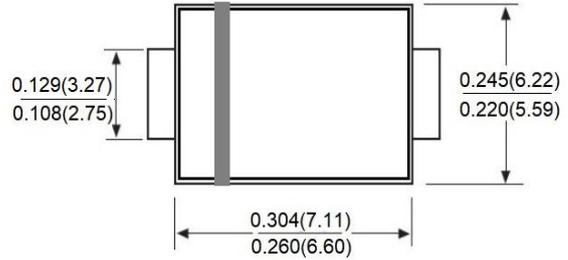
- **Package:** DO-214AB (SMC)  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per MIL-STD-750, Method 2026
- **Polarity:** Cathode line denotes the cathode end

Typical Applications

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

DO-214AB (SMC)

ROHS COMPLIANT HALOGEN FREE



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter&Test Conditions	SYM.	SK 52C	SK 53C	SK 54C	SK 55C	SK 56C	SK 58C	SK 510C	SK 515C	SK 520C	Unit
Device marking code		SK 52	SK 53	SK 54	SK 55	SK 56	SK 58	SK 510	SK 515	SK 520	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	V
Average rectified output current @60Hz sine wave, Resistance load, TL (FIG.1)	I <sub>O(AV)</sub>	5.0									A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load	I <sub>FSM</sub>	120									A
Maximum Thermal Resistance, Junction To Ambient (Note1)	R <sub>θJA</sub>	48									°C/W
Operating junction range	T <sub>j</sub>	-55 to+125				-55 to+150					°C
Storage temperature range	T <sub>STG</sub>	-55 to+150									°C

Electrical Characteristics (Ta=25°C Unless otherwise specified)

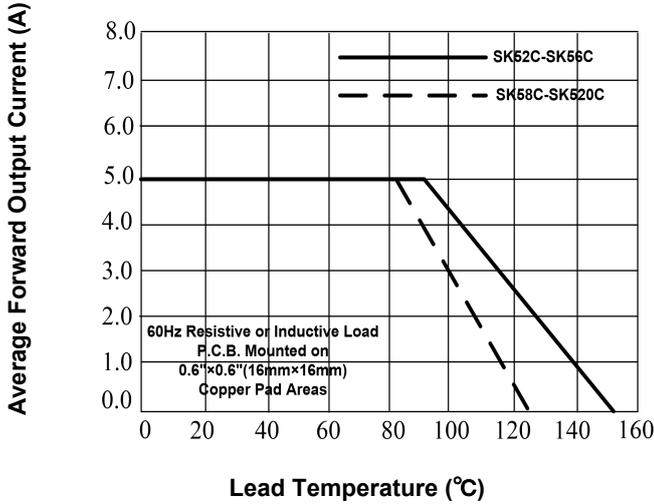
Parameter&Test Conditions	SYM.	SK 52C	SK 53C	SK 54C	SK 55C	SK 56C	SK 58C	SK 510C	SK 515C	SK 520C	Unit	
Maximum Instantaneous Forward Voltage IFM =5A	V <sub>FM</sub>	0.55			0.70		0.85		0.95		V	
Maximum DC reverse current at rated DC blocking voltage	TA = 25°C	0.2					0.05					mA
	TA = 100°C	10					5					

Notes:

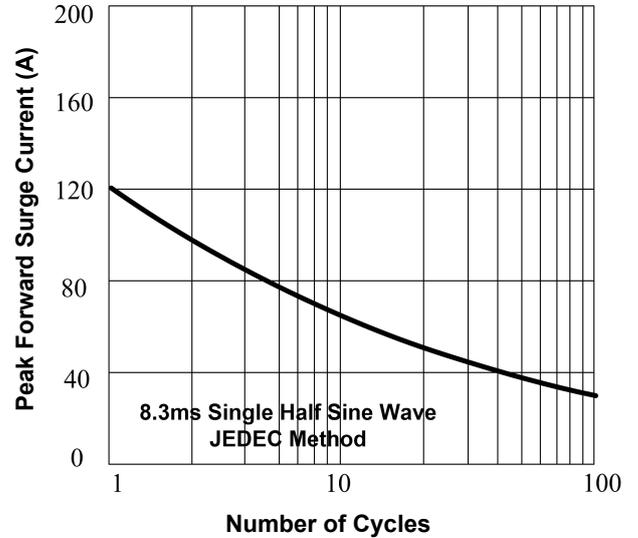
1. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad area.
2. The typical data above is for reference only.

**Rating and Characteristic Curves**

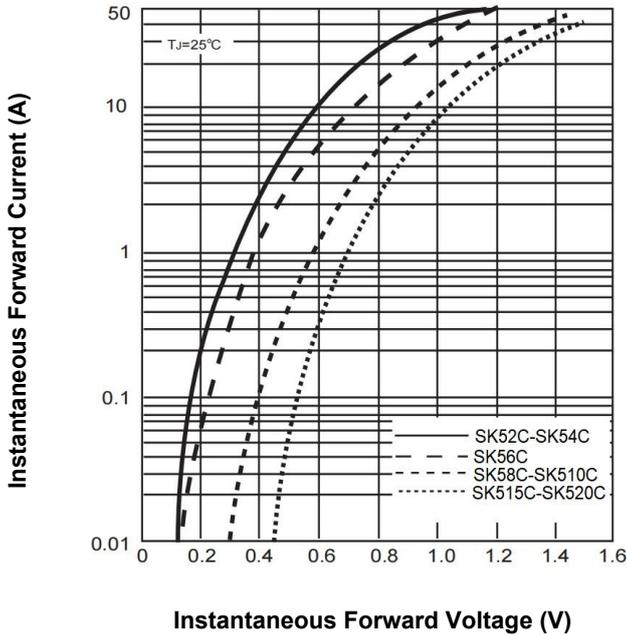
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED**



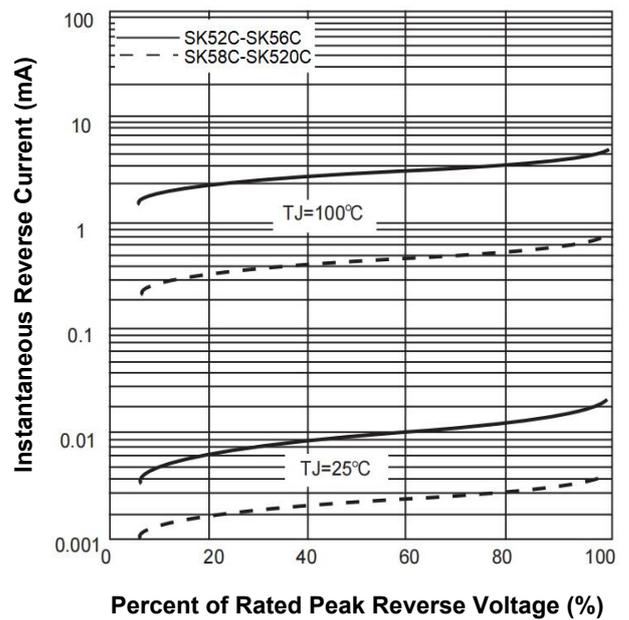
**FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



**FIG. 3- TYPICAL FORWARD VOLTAGE**

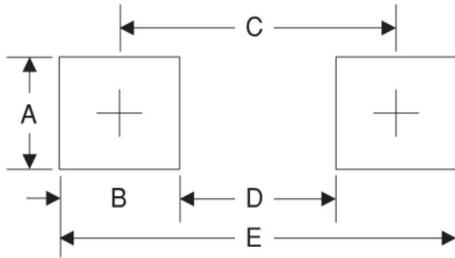


**FIG. 4- TYPICAL REVERSE LEAKAGE**



The curve above is for reference only.

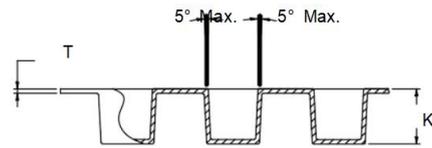
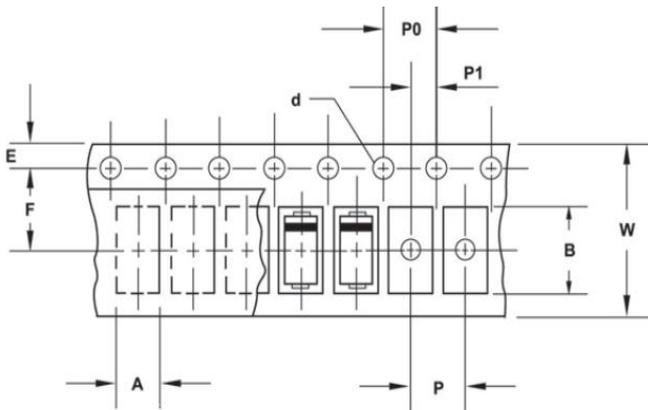
**Recommended Pad Layout**



SYMBOL	Millimeters
A	3.80
B	3.00
C	6.90
D	3.80
E	9.90

**Package Information**

**Carrier Dimension(mm)**



W	F	d	E
16.0	7.5	∅ 1.55	1.75
A	B	K	T
6.15	8.45	2.54	0.25
P0	P1	P	Tolerance
4.0	2.0	8.0	0.10

**Package Specifications**

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
SMC	13'	330	3	340	6	365*355*370	42
	13'	330	3	340	6	360*360*360	48

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