

10.0A Surface Mount Schottky Barrier Rectifiers - 20V-200V

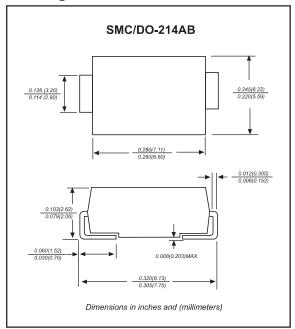
Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss,high efficiency
- ◆ Built-in strain relief,ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals
- ◆ Compliant to RoHS Directive 2011/65/EU

Mechanical data

- ◆ Case: JEDEC DO-214AB molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ Polarity: Color band denotes cathode end
- ◆ Mounting Position: Any
- ◆ Weight:0.007 ounce, 0.25 grams

Package outline



Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

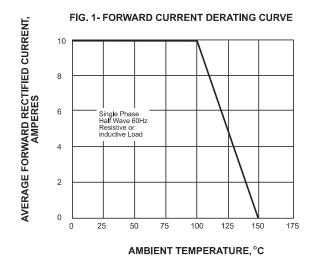
PARAMETER	SYMBOLS	SK102C	SK103C	SK104C	SK1045C	SK106C	SK108C	SK1010C	SK1015C	SK1020C	UNITS
Maximum repetitive peak reverse voltage	VRRM	20	30	40	45	60	80	100	150	200	V
Maximum RMS voltage	VRMS	14	21	28	32	42	56	70	105	140	V
Maximum DC blocking voltage	VDC	20	30	40	45	60	80	100	150	200	V
Maximum average forward rectified current at TL(see fig.1)		10.0							А		
										Peak forward surge current	
8.3ms single half sine-wave superimposed on						80.0					Α
rated load											
Maximum instantaneous forward voltage at 10A	VF		0.	55		0.70	0	.85	0.	95	V
Maximum DC reverse current Ta=25°C		0.5						mA			
at rated DC blocking voltage Ta=100℃	l IR	10.0									
Typical junction capacitance (NOTE 1)		550					pF				
Typical thermal resistance (NOTE 2)		50					°C/W				
Operating junction temperature range		-55 to +150					°C				
Storage temperature range		-55 to +150				°C					

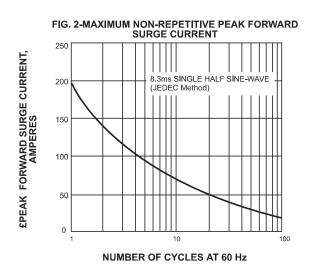
Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C. 2.P.C.B. mounted with 2.0x2.0"(5.0x5.0cm) copper pad areas

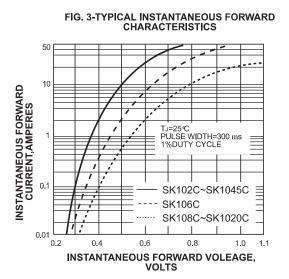


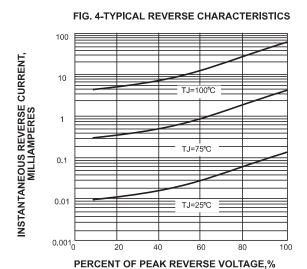
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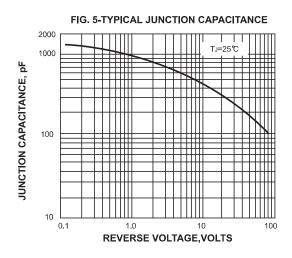
Rating and characteristic curves

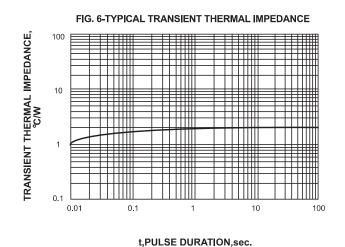














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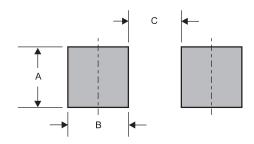
Pinning information

Pin	Simplified outline	Symbol		
Pin1 cathode Pin2 anode	1 [1 2		

Marking

Type number	Marking code
SK102C	SK102
SK103C	SK103
SK104C	SK104
SK1045C	SK1045
SK106C	SK106
SK108C	SK108
SK1010C	SK1010
SK1015C	SK1015
SK1020C	SK1020

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	А	В	С		
SMC	0.132 (3.30)	0.100 (2.50)	0.176(4.40)		

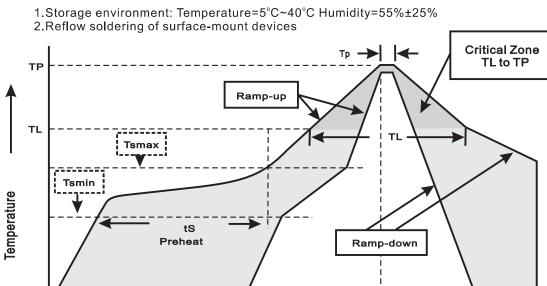


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Suggested thermal profiles for soldering processes

t25°C to Peak

Time



3.Reflow soldering

25

Profile Feature	Soldering Condition		
Average ramp-up rate(T∟ to T _P)	<3°C/sec		
Preheat -Temperature Min(Tsmin) -Temperature Max(Tsmax) -Time(min to max)(ts)	150°C 200°C 60~120sec		
Tsmax to T∟ -Ramp-upRate	<3°C/sec		
Time maintained above: -Temperature(TL) -Time(tL)	217°C 60~260sec		
Peak Temperature(T _P)	255°C-0/+5°C		
Time within 5°C of actual Peak Temperature(t _P)	10~30sec		
Ramp-down Rate	<6°C/sec		
Time 25°C to Peak Temperature	<6minutes		

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