



# SS1045C THRU SS10100C

Reverse Voltage - 45 to 100 Volts Forward Current - 10.0 Ampere

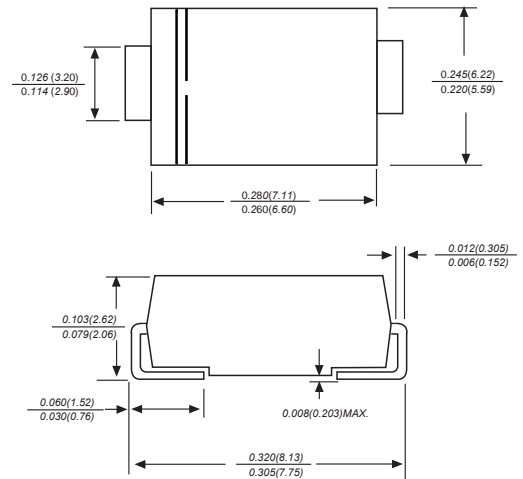
## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

### 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



### DO-214AB/SMC



Dimensions in inches and (millimeters)

### Mechanical Data

Case: JEDEC DO-214AB/SMC molded plastic body  
 Terminals: Solderable per MIL-STD-750, Method 2026  
 Polarity: Color band denotes cathode end Mounting  
 Position: Any  
 Weight: 0.0077 ounce, 0.22grams

### Maximum Ratings And Electrical Characteristics

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

Parameter	Symbols	SS1045C	SS1060C	SS10100C	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	45	60	100	V
Maximum RMS voltage	$V_{RMS}$	32	42	70	V
Maximum DC Blocking Voltage	$V_{DC}$	45	60	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10.0			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	150			A
Max Instantaneous Forward Voltage @10.0 A	$V_F$	0.55	0.75	0.90	V
Maximum DC Reverse Current at $T_a = 25^\circ\text{C}$ Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	$I_R$	0.5 50			mA
Typical thermal resistance	$R_{\theta JA}$	25			$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_j$	-55 ~ +125			$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ +150			$^\circ\text{C}$



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## Typical Characteristics

Fig.1 Forward Current Derating Curve

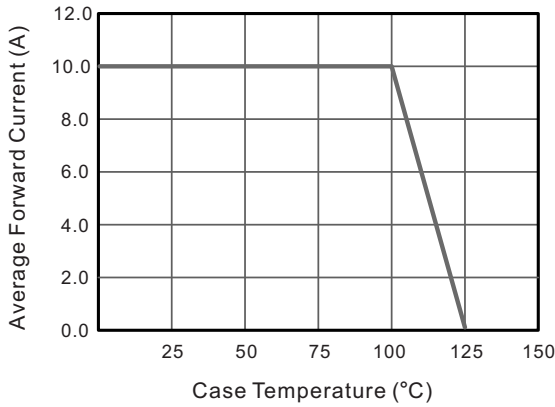


Fig.2 Typical Reverse Characteristics

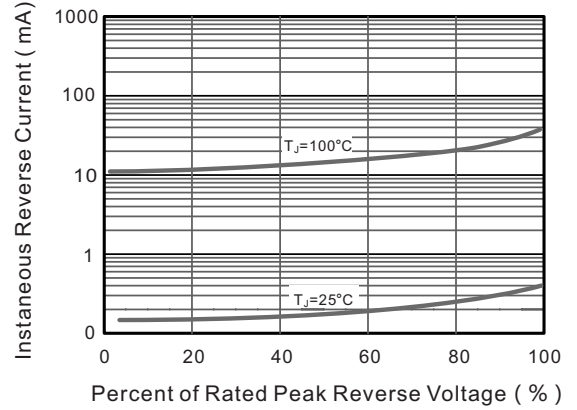


Fig.3 Typical Forward Characteristic

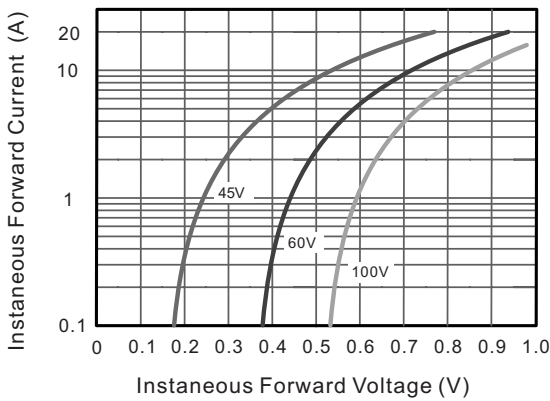
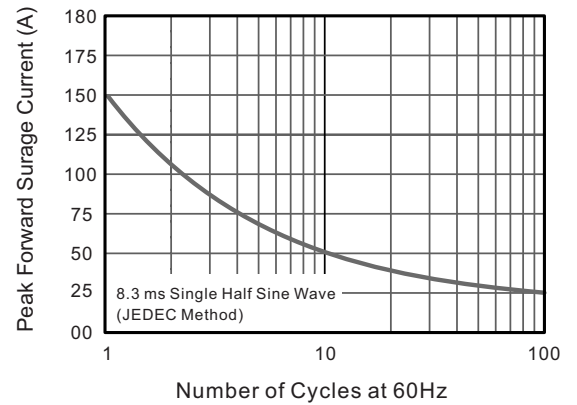


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.

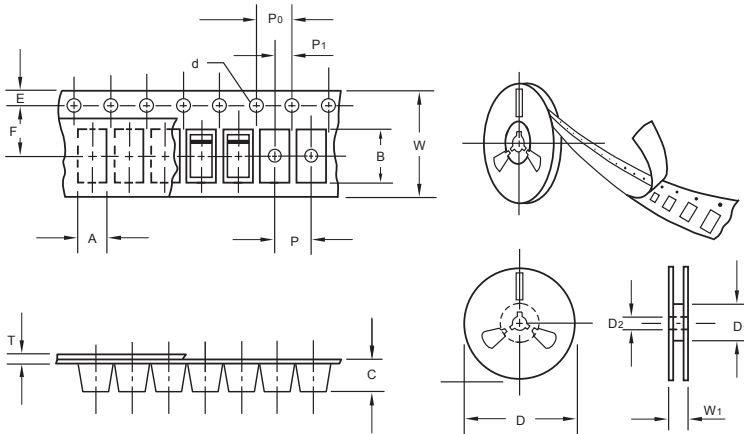


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## Packing information

unit:mm



Item	Symbol	Tolerance	SMC
Carrier width	A	0.1	6.15
Carrier length	B	0.1	8.41
Carrier depth	C	0.1	2.42
Sprocket hole	d	0.05	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D <sub>1</sub>	min	50.00
Feed hole diameter	D <sub>2</sub>	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	7.50
Punch hole pitch	P	0.1	8.00
Sprocket hole pitch	P <sub>0</sub>	0.1	4.00
Embossment center	P <sub>1</sub>	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	16.00
Reel width	W <sub>1</sub>	1.0	16.50

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

## Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (mm)	BOX (pcs)	INNER BOX (mm)	REEL DIA. (mm)	CARTON SIZE (mm)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SMC	13"	3,000	4.0	6000	190*190*41	330	365*365*340	42000	14.0

## Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	4.3	0.170
B	4.1	0.160
C	7.9	0.311
D	3.8	0.150
E	12	0.472