



SM320C thru SM3200C



Schottky Barrier Rectifiers



DO-214AB(SMC)

Primary Characteristics

I_F	3	A
V_{RRM}	20~200	V
I_{FSM}	80	A
V_F	0.55,0.70,0.85,0.87,0.90	V
T_J max	125,150	°C

Features

- Low profile package
- Ideal for automated placement
- Guard Ring for over voltage protection
- Low forward voltage drop

Mechanical Data

- Case : DO-214AB (SMC)
- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals : Lead Free Plating (Tin Finish.) Solderable per MIL-STD-202, Method 208
- Polarity : Cathode Band
- Weight : 0.231 grams (approximate)

Ordering Information

Part No.	Remark	Package	Packing
SM3xxxC	General	SMC	3000 / Tape & Reel
SM3xxxC-H	Halogen Free		
SM3xxxC-Q	AEC-Q101 qualified		

Maximum Ratings (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	SM 320C	SM 330C	SM 340C	SM 350C	SM 360C	SM 380C	SM 3100C	SM 3150C	SM 3200C	UNIT	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V	
Maximum average forward rectified current	I_F	3									A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80									A	
Maximum Instantaneous Forward Voltage IF=3A @ 25°C	V_F	0.55			0.70		0.85		0.87	0.90	V	
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I_R	0.5 10					0.2 5				mA	
Typical Junction Capacitance(NOTE1)	C_j	150					95		80		pF	
Typical Thermal Resistance	$R_{\theta Ja}$ $R_{\theta Jc}$	55 25										°C/W
Operating Temperature Range	T_J	-55 to +125					-55 to +150					°C
Storage Temperature Range	T_{STG}	-55 to +150										°C
Marking Code		SM 320C	SM 330C	SM 340C	SM 350C	SM 360C	SM 380C	SM 3100C	SM 3150C	SM 3200C		

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC



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Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

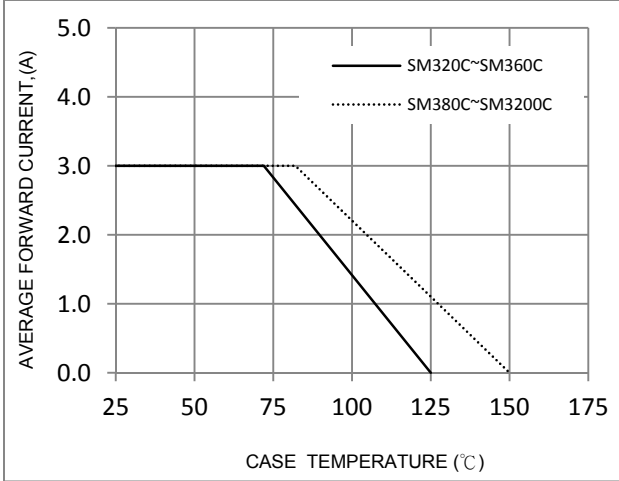


FIG. 2-Typical Forward Characteristics

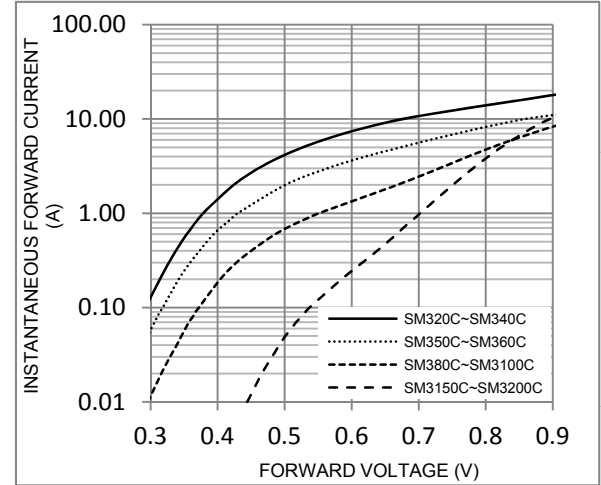


FIG. 3-Maximum Non-Repetitive Forward Surge Current

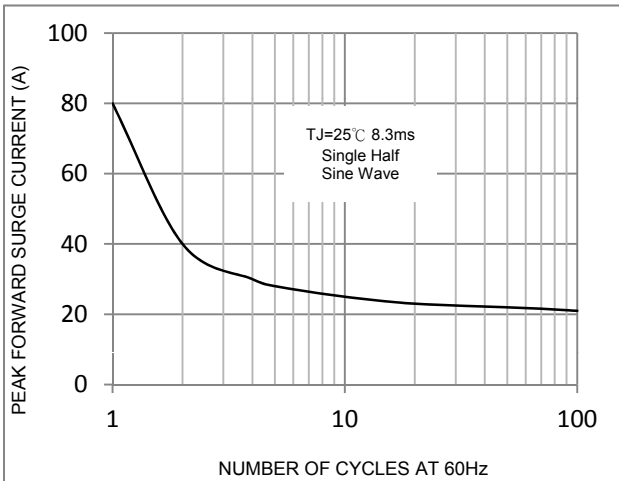


FIG. 4-Typical Reverse Characteristics

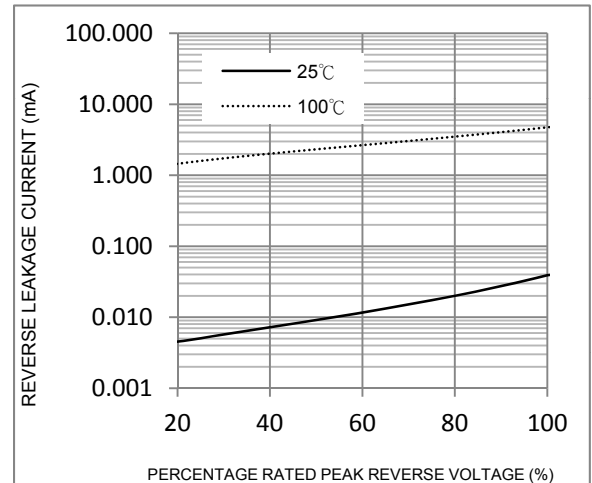
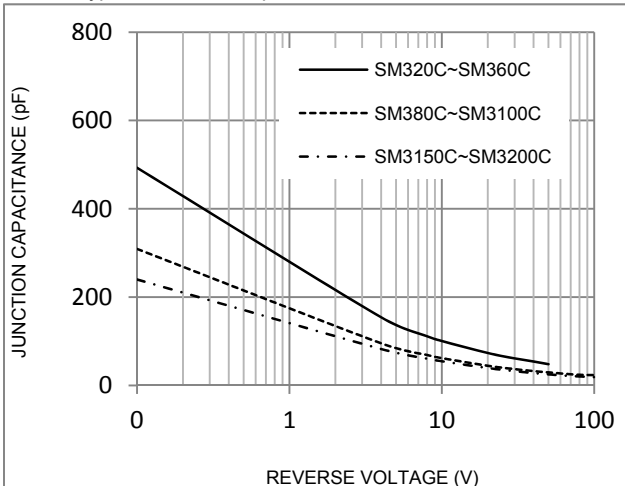


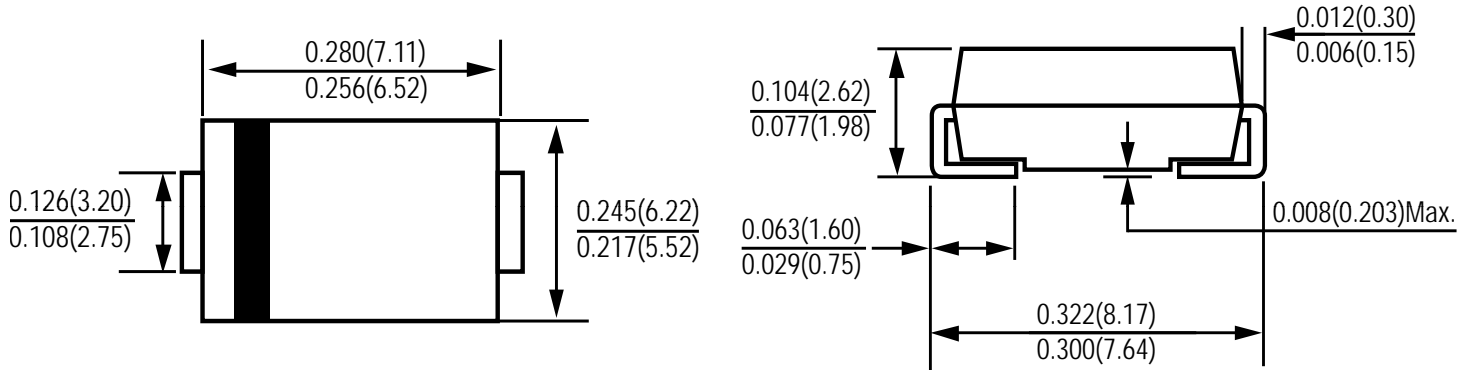
FIG. 5-Typical Junction Capacitance





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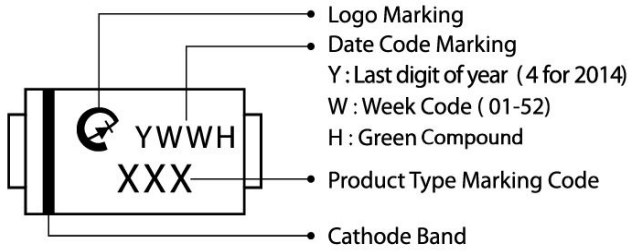
Package Outline Dimensions



DO-214AB(SMC)

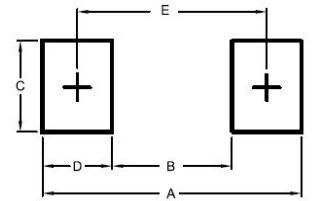
Dimensions in inches and (millimeters)

Marking Information



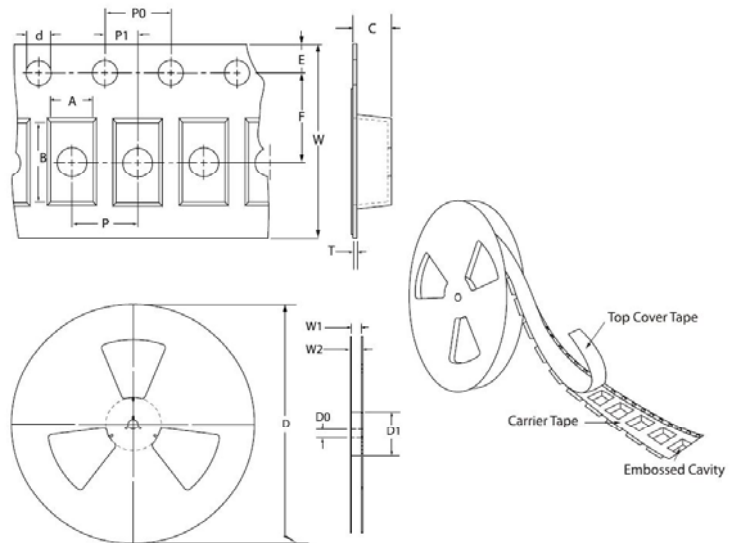
Suggested Pad Layout

Dimension	Outline	SMC (DO-214AB)
A		9.40
B		4.40
C		3.30
D		2.50
E		6.80



Tape & Reel Specification

ITEM	SYMBOL	SMC (mm)
		DO-214AB
Carrier width	A	6.3(max)
Carrier length	B	8.6(max)
Carrier depth	C	2.9(max)
Sprocket hole	d	1.50±0.1
Reel outside diameter	D	330±2.0
Feed hole diameter	D0	13.5±1
Reel inner diameter	D1	50 (min.)
Sprocket hole position	E	1.75±0.1
Punch hole position	F	7.5±0.05
Sprocket hole pitch	P	8.0±0.1
Sprocket hole pitch	Po	4.0±0.1
Embossment center	P1	2.0±0.1
Overall tape thickness	T	0.6 (max)
Tape width	W	16.0±0.3
Reel width	W2	22.4 (max)
Reel width	W1	18.4 (max)





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