



SM10xxxC SERIES



Schottky Barrier Rectifiers



DO-214AB(SMC)

Primary Characteristics

I_F	10	A
V_{RRM}	20~200	V
I_{FSM}	150	A
V_F	0.55, 0.75, 0.85, 0.92	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
SM10xxxC	RoHS Compliant	SMC	3000 / Tape & Reel
SM10xxxC-H	Halogen Free		
SM10xxxC-Q	AEC-Q101 qualified		

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

Parameter	Symbol	SM102 0C	SM103 0C	SM104 0C	SM105 0C	SM106 0C	SM108 0C	SM101 00C	SM101 50C	SM102 00C	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	10									A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	150									A
Maximum Instantaneous Forward Voltage IF=10A @ 25°C	V_F	0.55			0.75		0.85		0.92		V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I_R	0.5 30					0.2 10				mA
Typical Junction Capacitance (NOTE 1)	C_J	440			355		245		175	140	pF
Typical Thermal Resistance	$R_{\theta JC}$	30									°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		SM102 0C	SM103 0C	SM104 0C	SM105 0C	SM106 0C	SM108 0C	SM101 00C	SM101 50C	SM102 00C	

NOTES :

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



Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

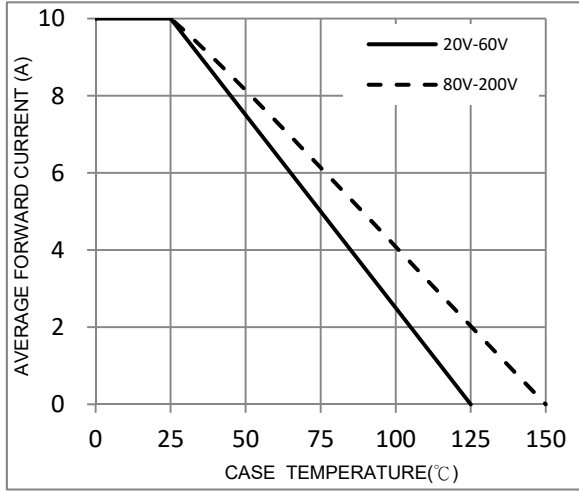


FIG. 2-Typical Forward Characteristics

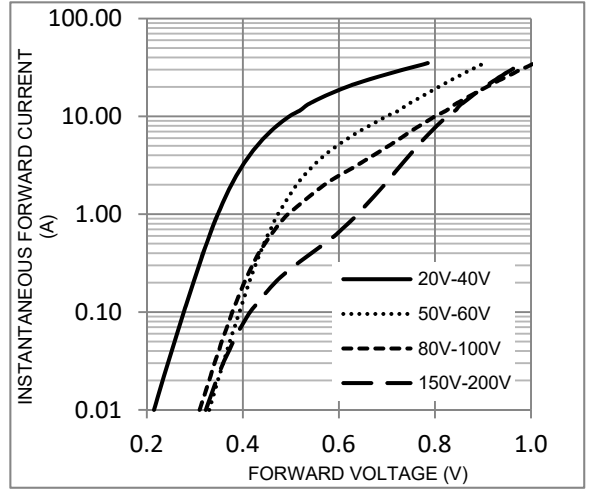


FIG. 3-Maximum Non-Repetitive Forward Surge Current

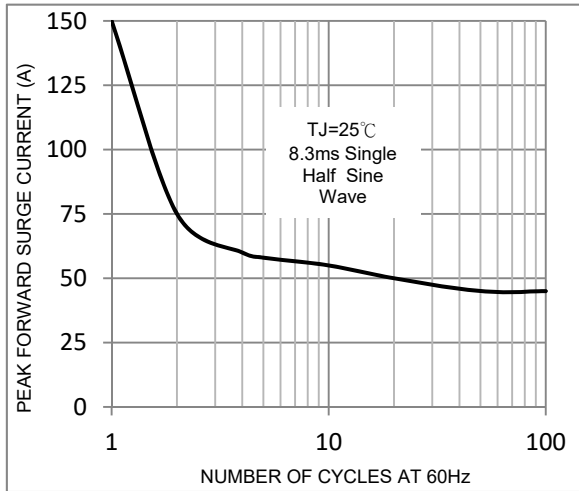


FIG. 4-Typical Reverse Characteristics

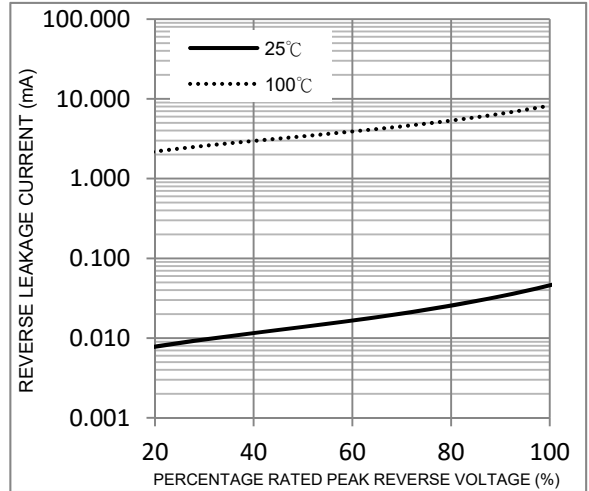
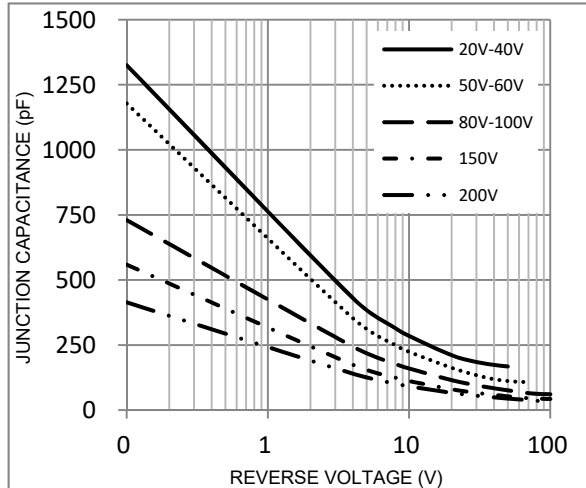
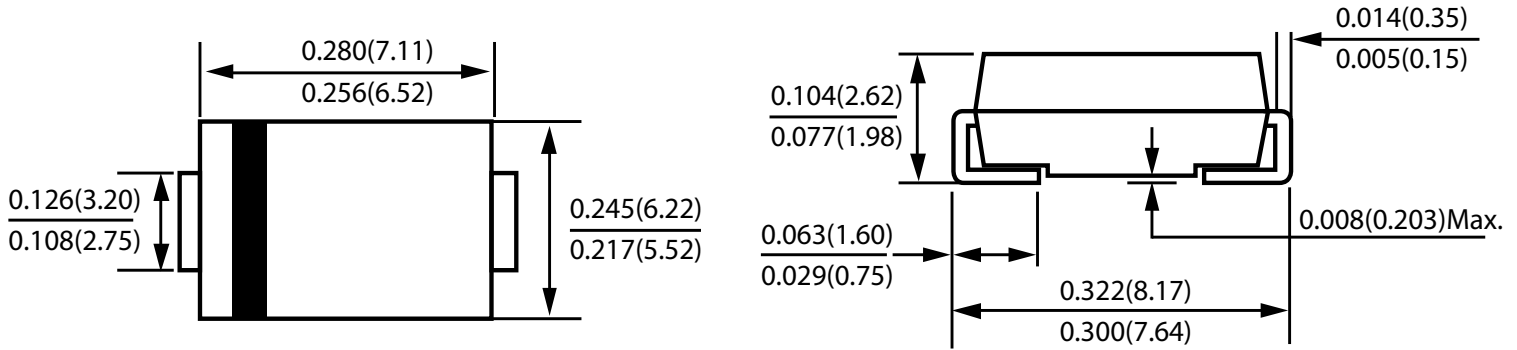


FIG. 5-Typical Junction Capacitance





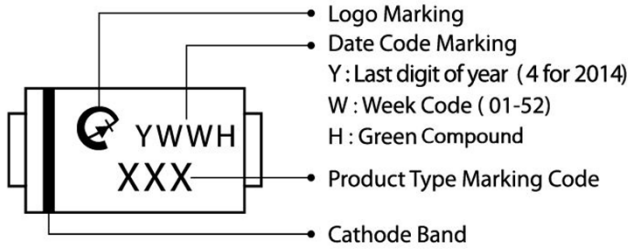
Package Outline Dimensions



DO-214AB(SMC)

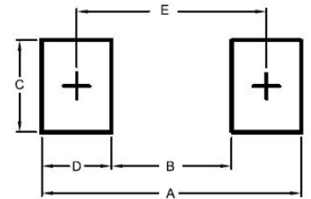
Dimensions in inches and (millimeters)

Marking Information



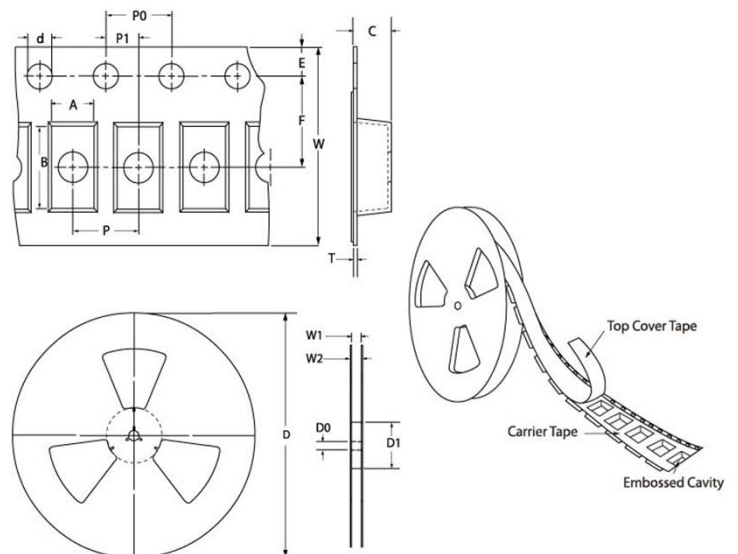
Suggested Pad Layout

Outline Dimension	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 ± 1.0
Reel inner diameter	D1	50 (min.)
Sprocket hole position	E	1.75 ± 0.1
Punch hole position	F	7.5 ± 0.1
Sprocket hole pitch	P	8.0 ± 0.1
Sprocket hole pitch	P0	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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