



SM2100UB



Schottky Barrier Rectifiers



DO-214AA(SMB)

Primary Characteristics

I_F	2	A
V_{RRM}	100	V
I_{FSM}	130	A
V_F	0.79	V
$T_J \text{ max}$	175	°C

Features

- Low Profile Package
- Ideal for Automated Placement
- Guard Ring for Over Voltage Protection
- Low Forward Voltage Drop

Mechanical Data

- Case : DO-214AA(SMB)
- 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 : 0.095 grams (approximate)

Ordering Information

Part No.	Remark	Package	Packing
SM2100UB	General	SMB	3000 / Tape & Reel
SM2100UB-H	Halogen Free		
SM2100UB-Q	AEC-Q101 qualified		

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

Parameter	Symbol	SM2100UB	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	I_F	2	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	130	A
Maximum Instantaneous Forward Voltage IF=2A @ 25°C	V_F	0.79	V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$	I_R	0.008 1.5	mA
Typical Junction Capacitance (NOTE1)	C_j	140	pF
Typical Thermal Resistance	$R_{\theta JC}$	35	°C/W
Operating Temperature Range	T_J	-55 to +175	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C
Marking Code		2100UB	

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

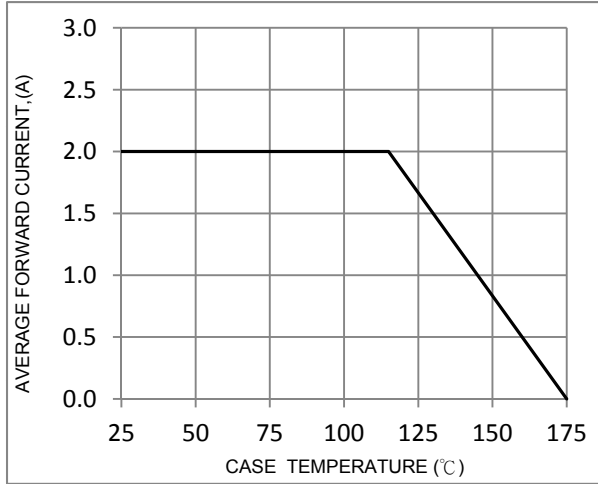


FIG. 2-Typical Forward Characteristics

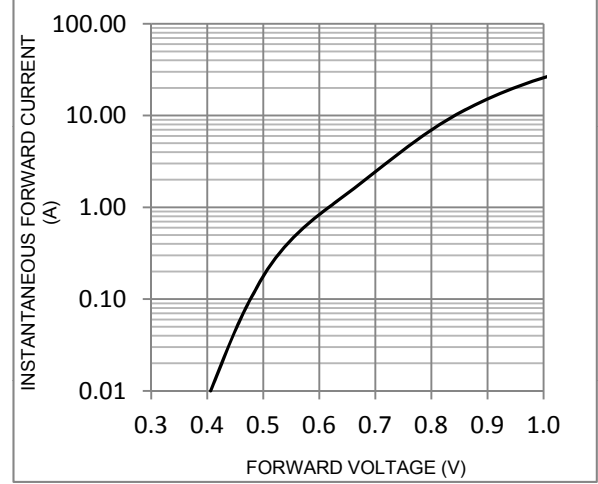


FIG. 3-Maximum Non-Repetitive Forward Surge Current

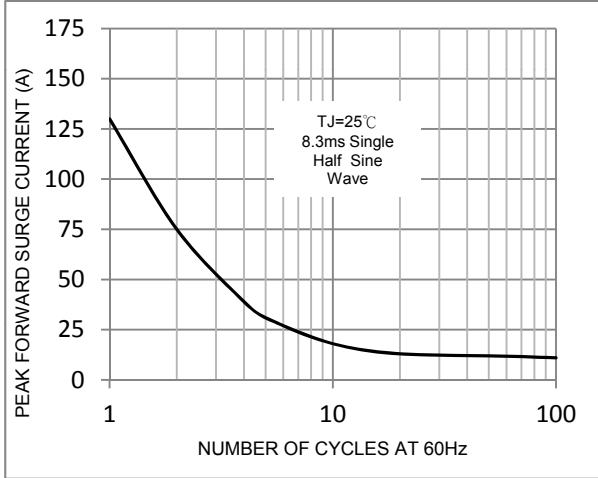


FIG. 4-Typical Reverse Characteristics

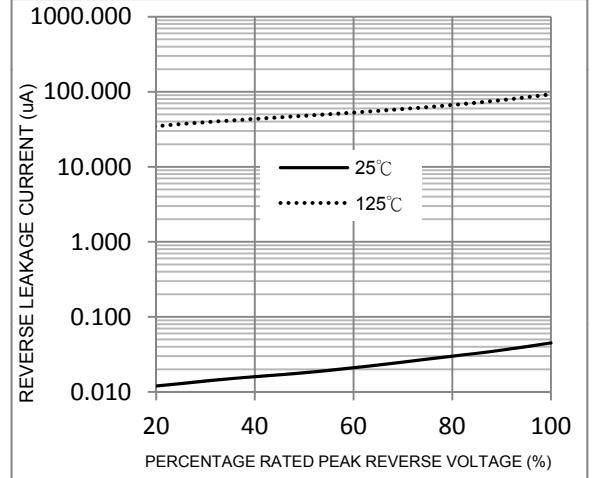
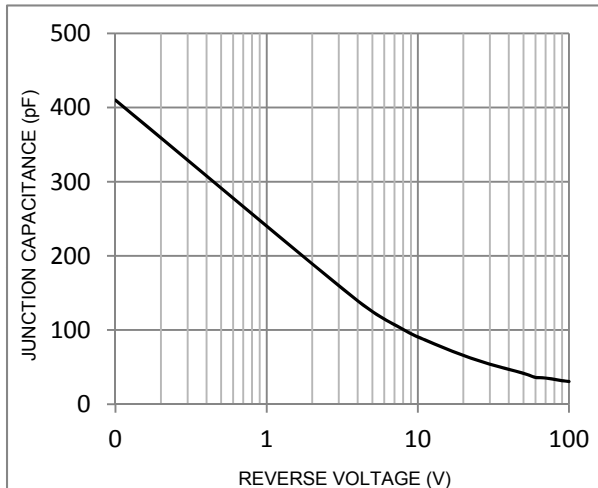
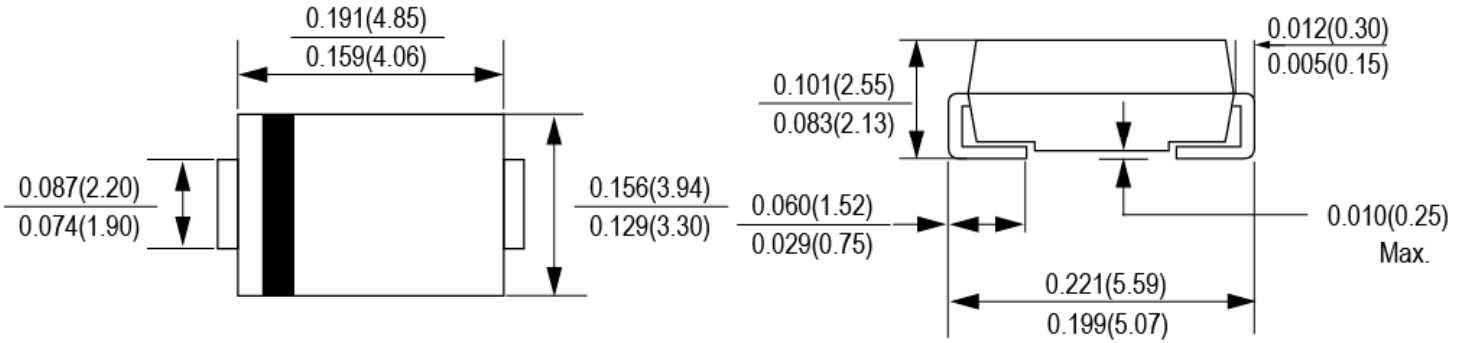


FIG. 5-Typical Junction Capacitance





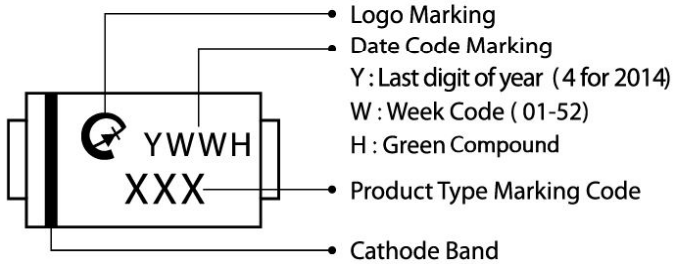
Package Outline Dimensions



DO-214AA(SMB)

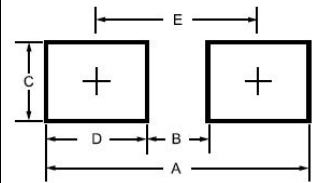
Dimensions in inches and (millimeters)

Marking Information



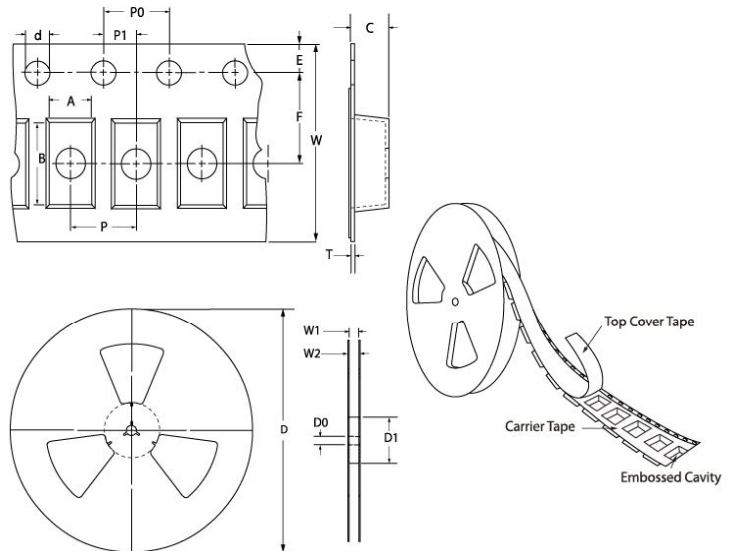
Suggested Pad Layout

Outline Dimension	SMB (DO-214AA)
A	6.80
B	1.80
C	2.30
D	2.50
E	4.30



Tape & Reel Specification

Item	Symbol	SMB(mm) DO-214AA
Carrier width	A	4.0(max)
Carrier length	B	5.9(max)
Carrier depth	C	3.0(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	5.5±0.05
Sprocket hole pitch	P	8.0±0.1
Sprocket hole pitch	P0	4.0±0.1
Embossment center	P1	2.0±0.05
Overall tape thickness	T	0.6 (max)
Tape width	W	12.0±0.3
Reel width	W2	18.4 (max)
Reel width	W1	14.4 (max)





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