



SFM201B Thru SFM208B



Super Fast Recovery Rectifiers Glass Passivation Junction



DO-214AA(SMB)

Features

- High current capability
- High surge current capability
- Low reverse current

Primary Characteristics

I_F	2	A
V_{RRM}	50~600	V
I_{FSM}	50	A
V_F	0.98, 1.3, 1.7	V
T_J max	150	°C

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 : 0.096 grams (approximate)

Ordering Information

Part No.	Remark	Package	Packing
SFM20xB	General	SMB	3000 / Tape & Reel
SFM20xB-H	Halogen Free		
SFM20xB-Q	AEC-Q101 qualified		

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

PARAMETER	SYMBOL	SFM 201B	SFM 202B	SFM 203B	SFM 204B	SFM 205B	SFM 206B	SFM 208B	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum average forward rectified current	I _F	2.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	50.0							A
Maximum Instantaneous Forward Voltage IF=2A @ 25°C	V _F	0.98				1.3		1.7	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I _R	5 100							uA
Typical Junction Capacitance(NOTE1)	C _j	30							pF
Maximum Reverse Recovery Time(NOTE2)	T _{rr}	35							ns
Typical Thermal Resistance	R _{θJC}	60							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C
Marking Code		SFM 201B	SFM 202B	SFM 203B	SFM 204B	SFM 205B	SFM 206B	SFM 208B	

NOTES :

- 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC
- 2.Measured with IF=0.5A,IR=1A,IRR=0.25A



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Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

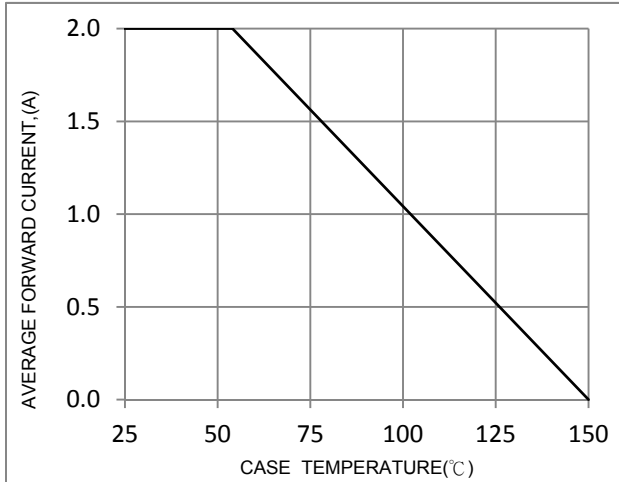


FIG. 2-Typical Forward Characteristics

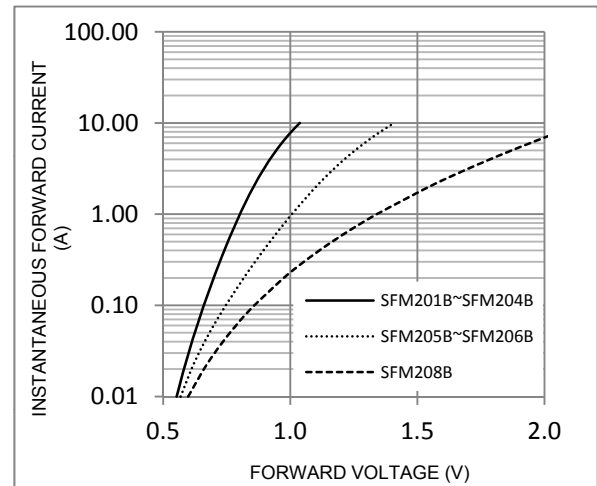


FIG. 3-Maximum Non-Repetitive Forward Surge Current

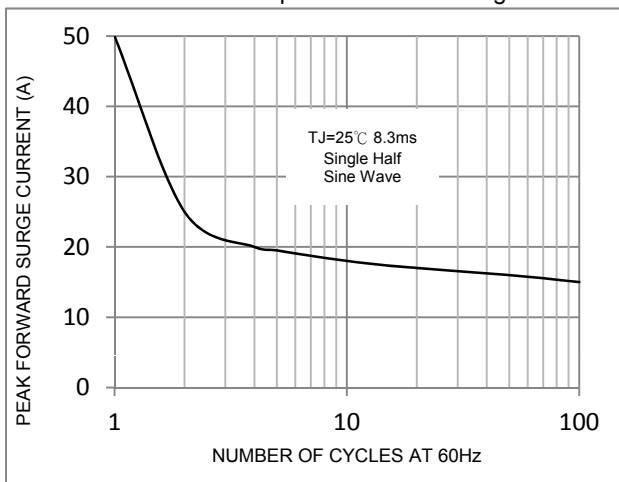


FIG. 4-Typical Reverse Characteristics

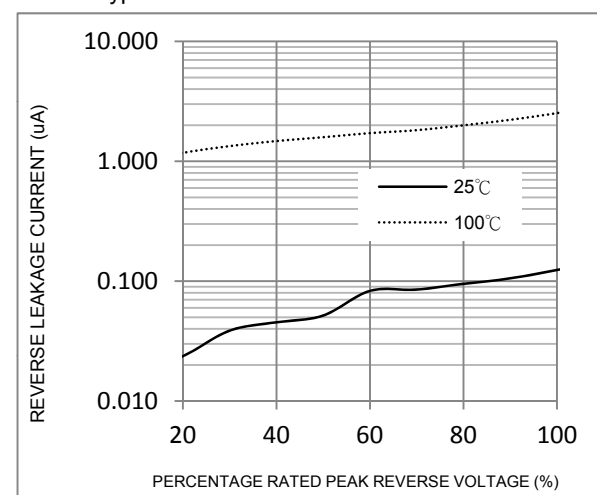


FIG. 5-Typical Junction Capacitance

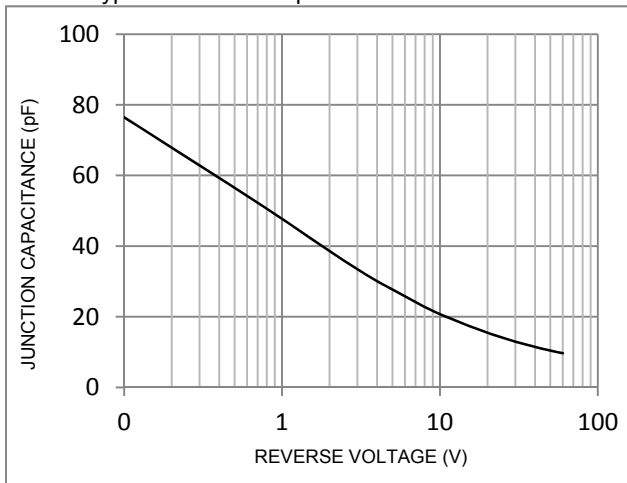
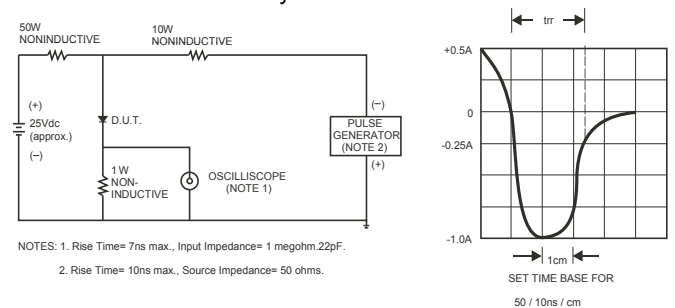


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit



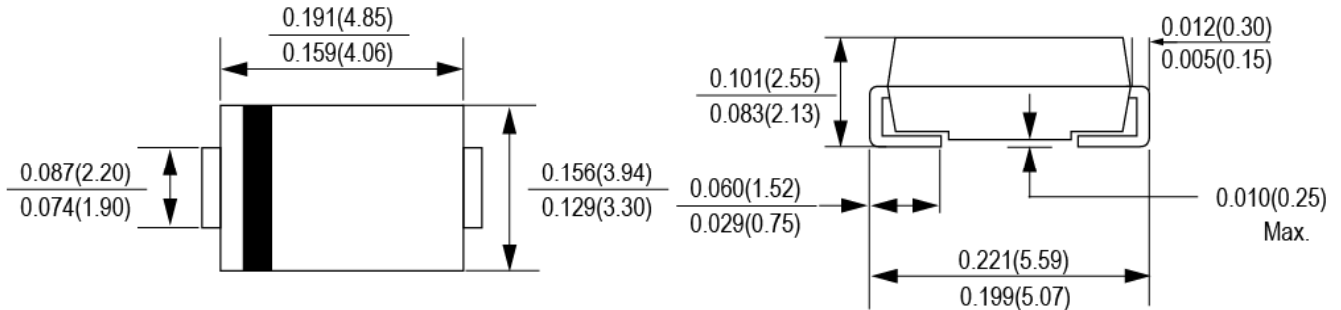


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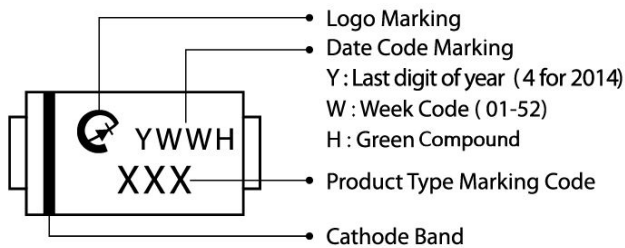
Package Outline Dimensions



DO-214AA(SMB)

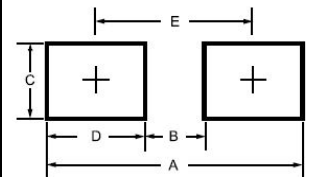
Dimensions in inches and (millimeters)

Marking Information



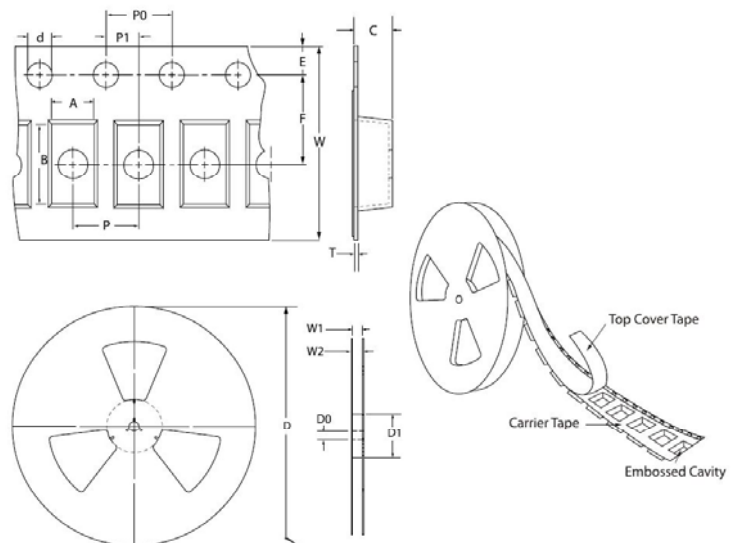
Suggested Pad Layout

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



Tap & 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	Po	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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