



SFM101A Thru SFM108A



Super Fast Recovery Rectifiers Glass Passivation Junction



DO-214AC(SMA)

Primary Characteristics		
I_F	1	A
V_{RRM}	50~600	V
I_{FSM}	30	A
V_F	0.98, 1.3, 1.7	V
T_J max	150	°C

Features
• High current capability • High surge current capability • Low reverse current • Component in accordance to RoHS 2002/95/EC

Mechanical Data
• Cases: DO-214AC(SMA) • 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: 0.062 grams (approximate)

Ordering Information			
Part No.	Remark	Package	Packing
SFM10xA	General	SMA	5000 / Tape & Reel
SFM10xA-H	Halogen Free		
SFM10xA-Q	AEC-Q101 qualified		

Maximum Ratings (TA=25°C unless otherwise noted)									
PARAMETER	SYMBOL	SFM 101A	SFM 102A	SFM 103A	SFM 104A	SFM 105A	SFM 106A	SFM 108A	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	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30.0							A
Maximum Instantaneous Forward Voltage IF=1A @ 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	20							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 101A	SFM 102A	SFM 103A	SFM 104A	SFM 105A	SFM 106A	SFM 108A	

NOTES:

1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC
2. Measured with $I_F=0.5A$, $I_R=1A$, $IRR=0.25A$



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Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

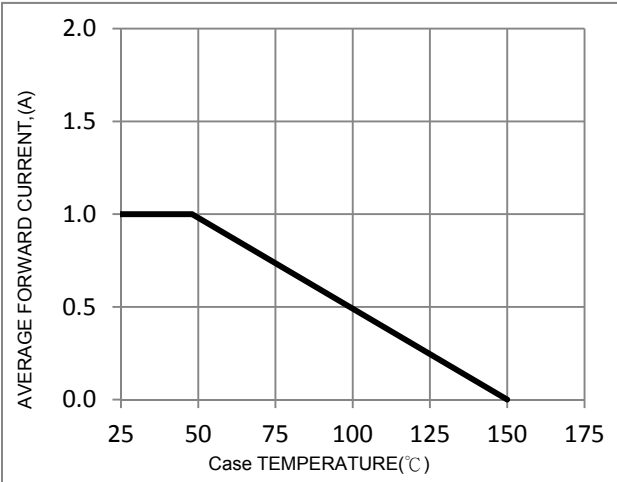


FIG. 2-Typical Forward Characteristics

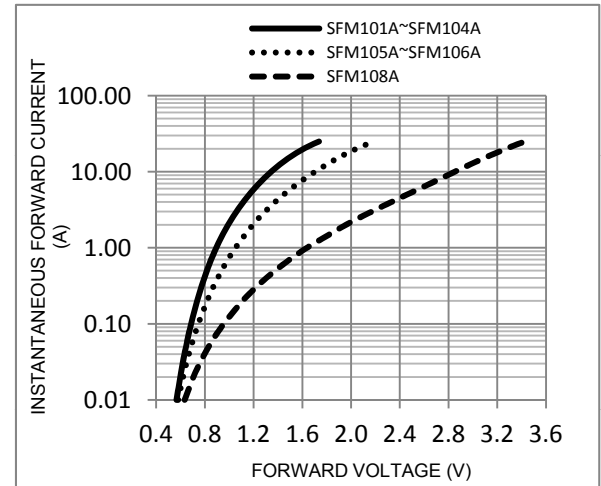


FIG. 3-Maximum Non-Repetitive Forward Surge Current

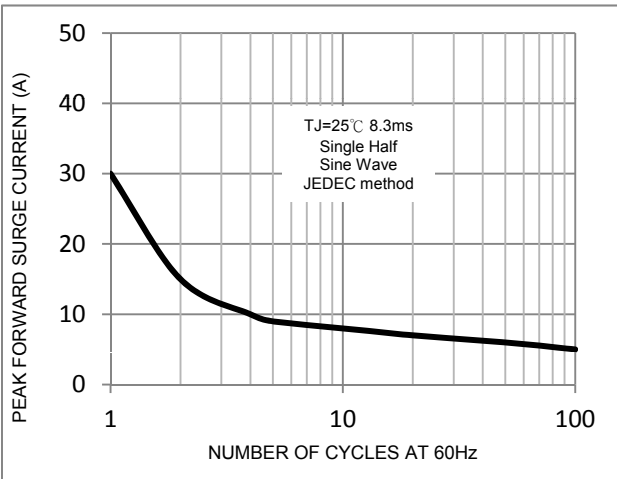


FIG. 4-Typical Reverse Characteristics

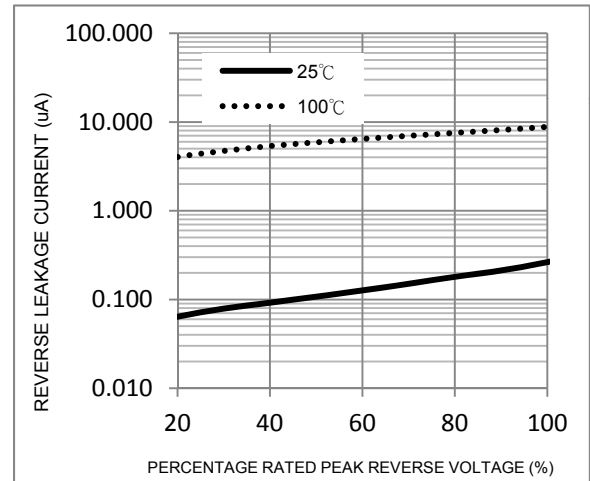


FIG. 5-Typical Junction Capacitance

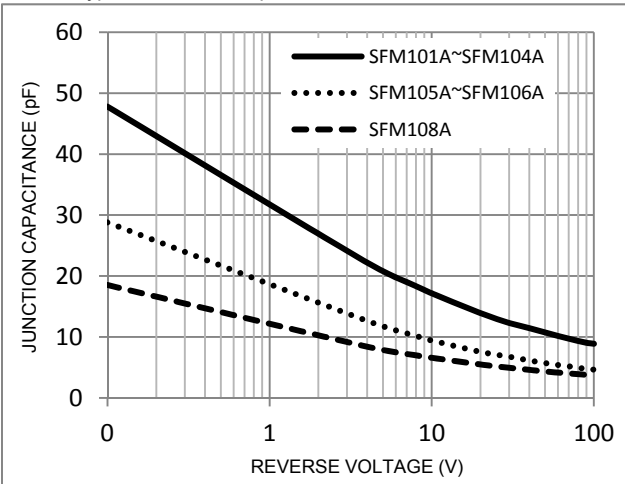
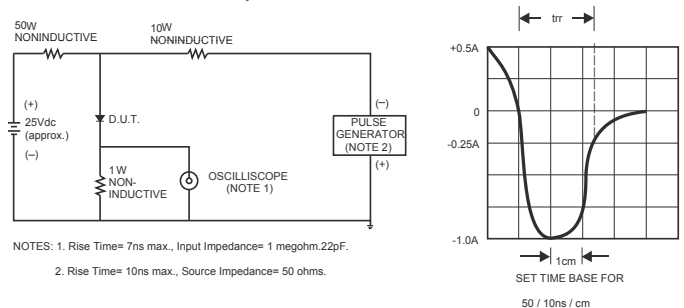


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit



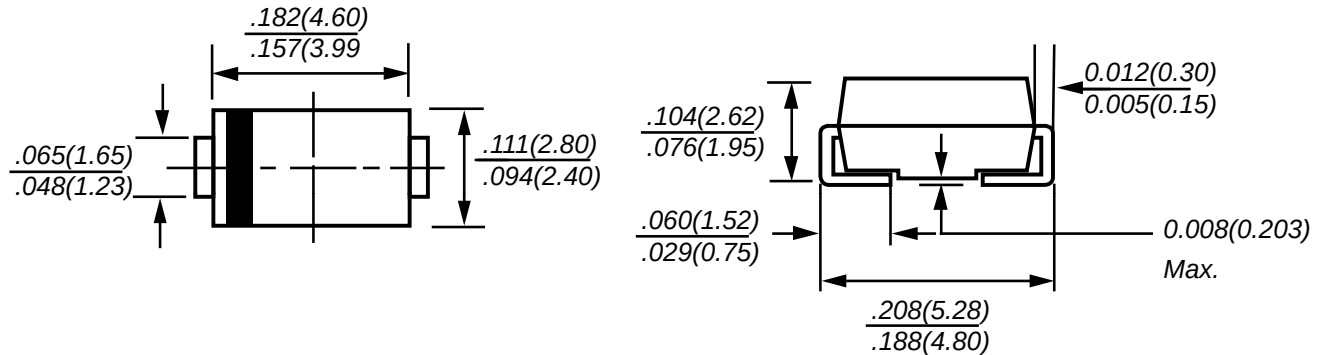


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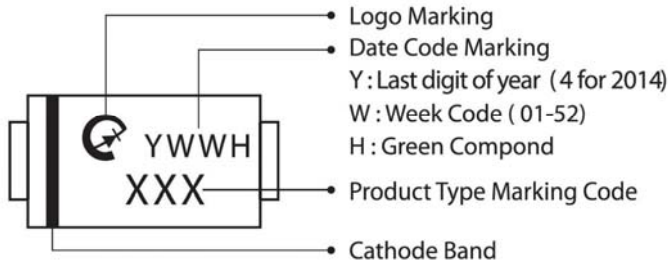
Package Outline Dimensions



DO-214AC(SMA)

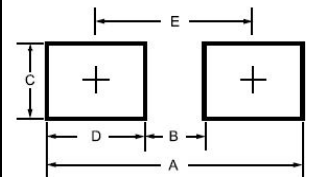
Dimensions in inches and (millimeters)

Marking Information



Suggested Pad Layout

Dimension	Outline	SMA (DO-214AC)
A		6.50
B		1.50
C		1.70
D		2.50
E		4.00



Tap & Reel Specification

ITEM	SYMBOL	SMA(mm) DO-214AC
Carrier width	A	2.9(max)
Carrier length	B	5.9(max)
Carrier depth	C	2.66(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	4.0±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)

