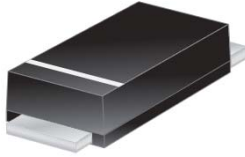




# SM3xxxAFS SERIES



## Schottky Barrier Rectifiers



**SMAF-S**

### Primary Characteristics

$I_F$	3	A
$V_{RRM}$	20~200	V
$I_{FSM}$	80	A
$V_F$	0.55、0.7、0.85、0.92	V
$T_J \text{ max}$	125、150	°C

### Features

- Schottky Barrier Chip
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 80A Peak

### Mechanical Data

- Case : Molded plastic SMAF-S
- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals : Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity : Cathode Band

### Ordering Information

Part No.	Remark	Package	Packing
SM3xxxAFS	RoHS Compliant	SMAF-S	10000 / Tape & Reel
SM3xxxAFS-H	Halogen Free		
SM3xxxAFS-Q	AEC-Q101 qualified		

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

Parameter	Symbol	SM3 20AFS	SM3 30AFS	SM3 40AFS	SM3 50AFS	SM3 60AFS	SM3 80AFS	SM3 100AF S	SM3 150AF S	SM3 200AF S	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 $I_F=3A @ 25^\circ C$	$V_F$	0.55			0.7		0.85		0.92		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 (NOTE 1)	$C_J$	110						70				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		S320	S330	S340	S350	S360	S380	S3100	S3150	S3200		

### 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

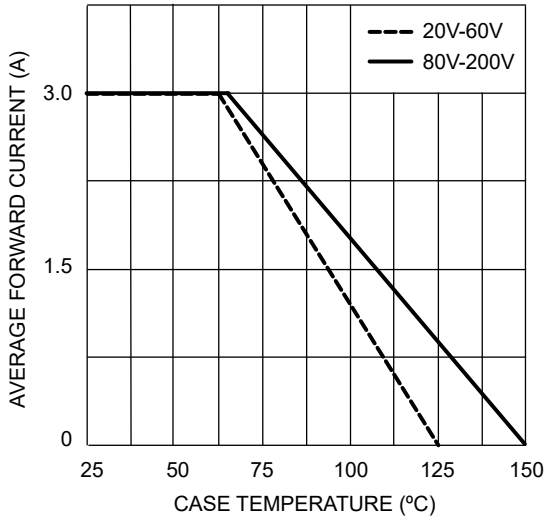


FIG. 2-Typical Forward Characteristics

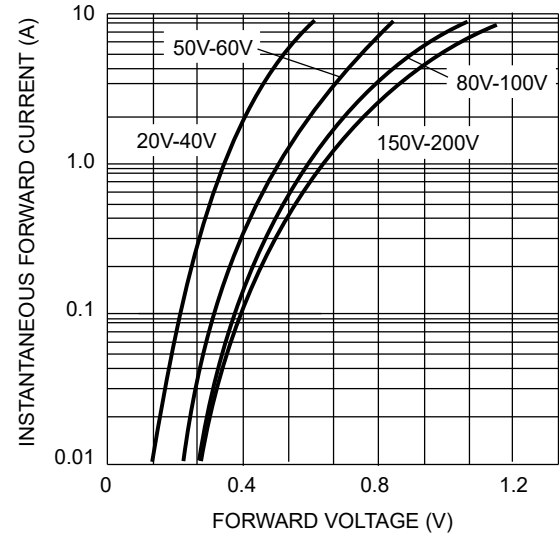


FIG. 3-Maximum Non-Repetitive Forward Surge Current

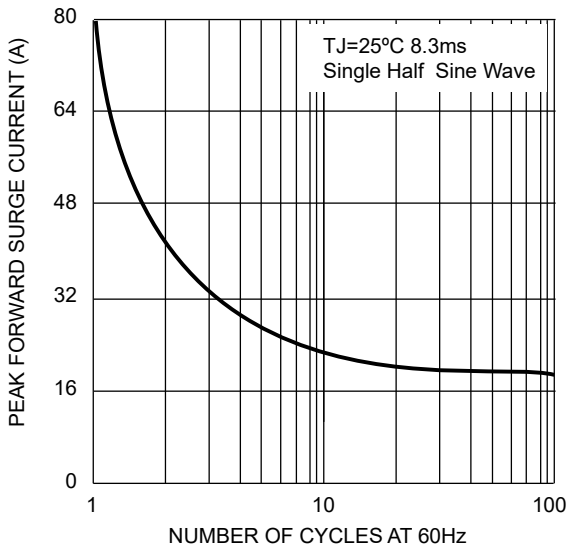
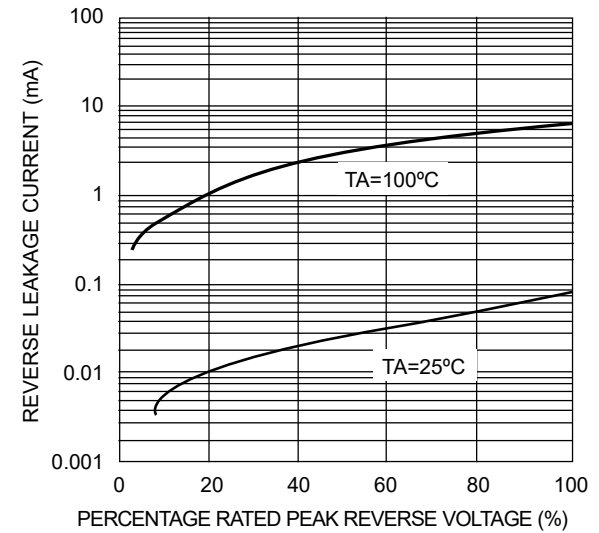
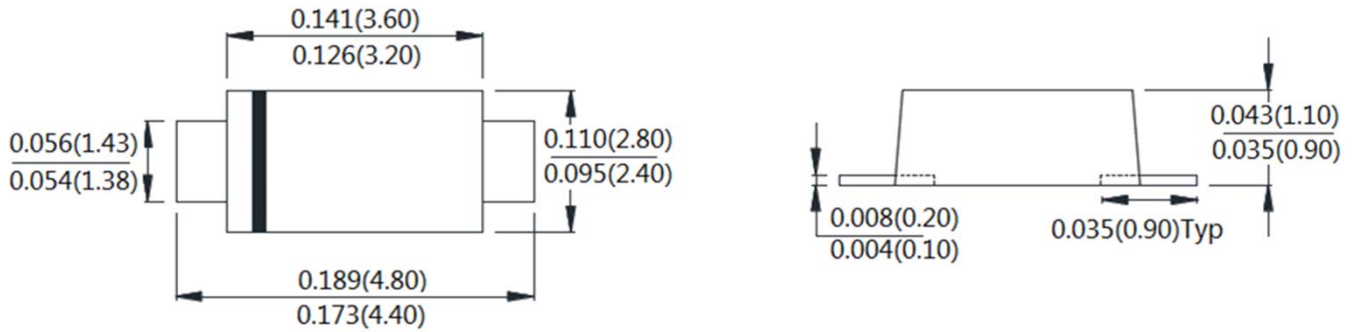


FIG. 4-Typical Reverse Characteristics





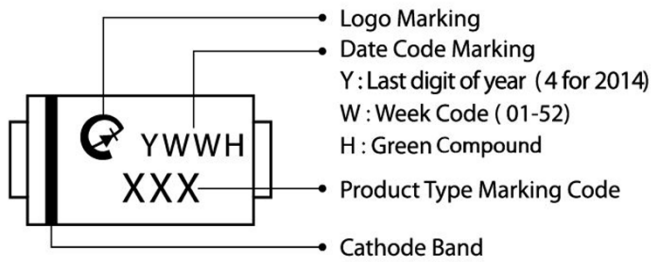
### Package Outline Dimensions



### SMAF-S

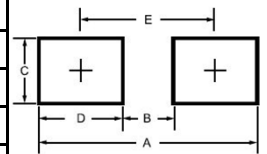
Dimensions in inches and (millimeters)

### Marking Information



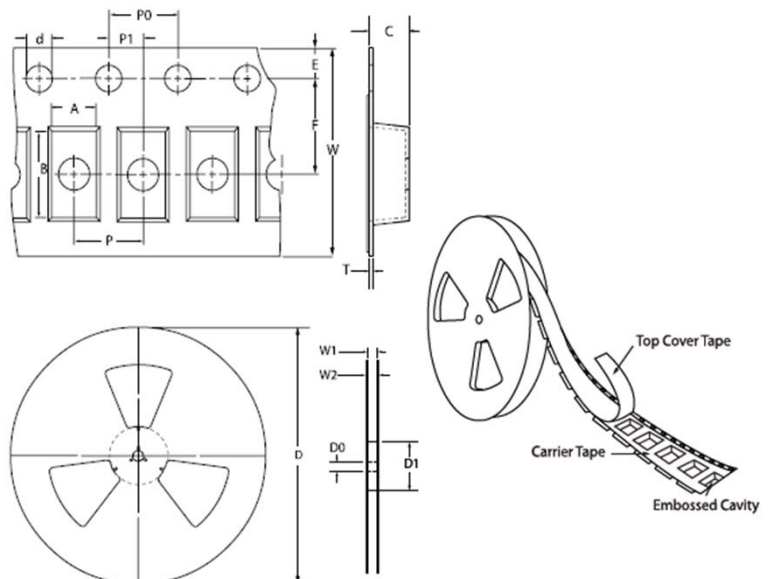
### Suggested Pad Layout

Outline Dimension	SMAF-S (mm)
A	5.70
B	2.50
C	1.50
D	1.60
E	-



### Tape & Reel Specification

Item	Symbol	SMAF-S (mm)
Carrier width	A	2.83 ± 0.1
Carrier length	B	4.75 ± 0.1
Carrier depth	C	1.42 ± 0.1
Sprocket hole	d	1.55 ± 0.05
Reel outside diameter	D	330 ± 1.0
Feed hole diameter	D0	13 ± 0.5
Reel inner diameter	D1	100 ± 0.5
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	0.25 ± 0.05
Tape width	W	12 ± 0.15
Reel width	W1	12.4 ± 0.5
Reel width	W2	18.4 (max)





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