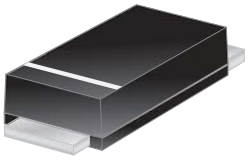
SM5xxxUAFS SERIES

Schottky Barrier Rectifiers



SMAF-S

Primary Characteristics

I_F	5	A
V_{RRM}	20~200	V
I_{FSM}	110	A
V_F	0.53、0.67、0.82、0.90	V
T_J max	125、150	°C

Features

- Schottky Brrier Chip
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 110A 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
SM5xxxUAFS	General	SMAF-S	10000 / Tape & Reel
SM5xxxUAFS-H	Halogen Free		
SM5xxxUAFS-Q	AEC-Q101 qualified		

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

Parameter	Symbol	SM5 20UAFS	SM5 30UAFS	SM5 40UAFS	SM5 50UAFS	SM5 60UAFS	SM5 80UAFS	SM5 100UAFS	SM5 150UAFS	SM5 200UAFS	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	5									A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	110									A
Maximum Instantaneous Forward Voltage IF=5A @ 25°C	V_F	0.53			0.67		0.82		0.9		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	C_J	220					115				pF
Typical Thermal Resistance	$R_{\theta JA}$	88									°C/W
Operating Temperature Range	T_J	-55 to +125					-55 to +150				°C
Storage Temperature Range	T_{STG}	-55 to +150									°C

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

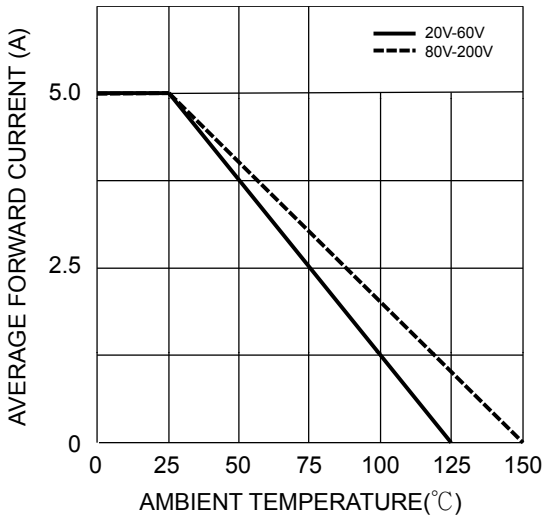


FIG. 2-Typical Forward Characteristics

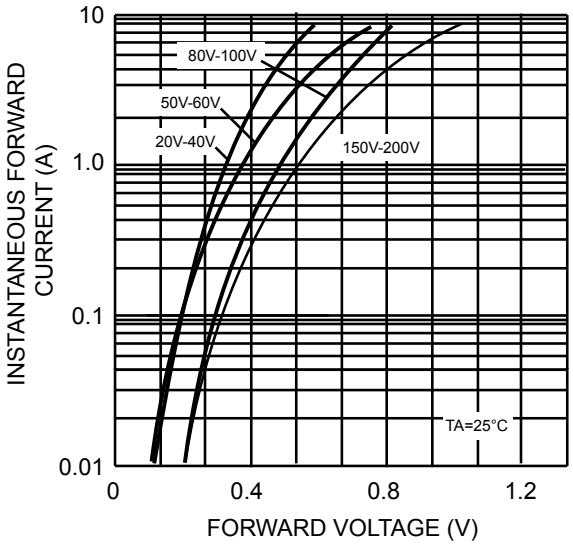


FIG. 3-Maximum Non-Repetitive Forward Surge Current

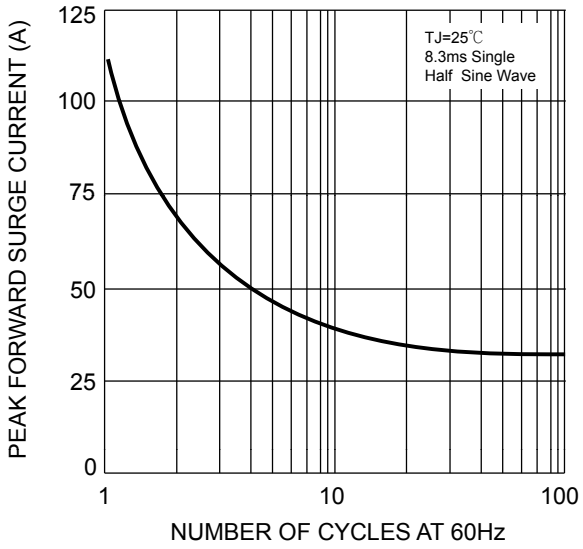
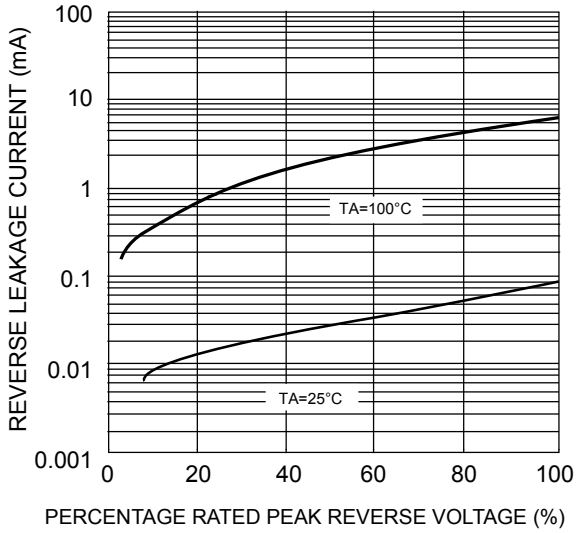
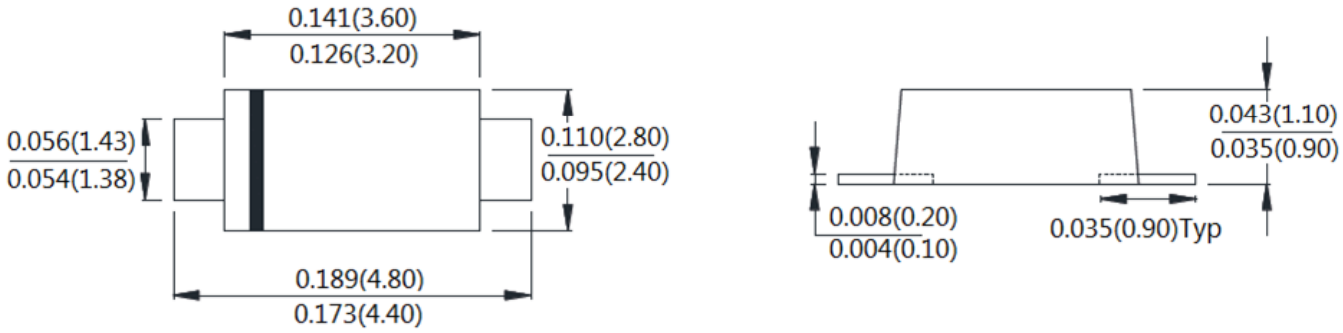


FIG. 4-Typical Reverse Characteristics



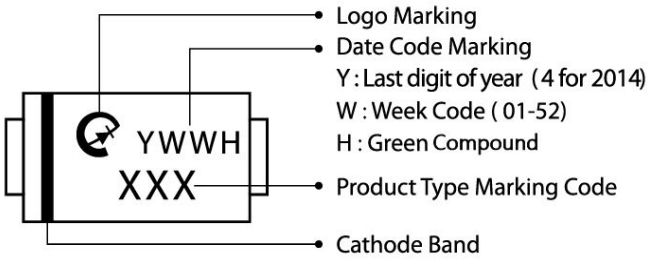
Package Outline Dimensions



SMAF-S

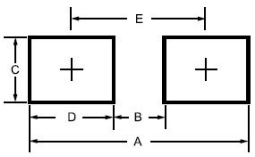
Dimensions in inches and (millimeters)

Marking Information



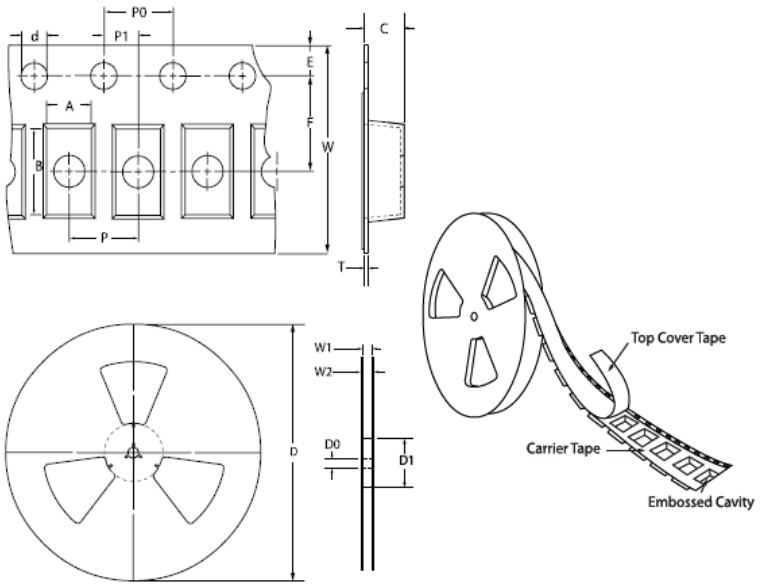
Suggested Pad Layout

Dimension \ Outline	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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