



UMB05S~UMB10S

SURFACE MOUNT BRIDGE RECTIFIERS

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- Low Leakage Current
- High Forward Surge Capability
- Designed for Surface Mount Application
- Plastic Material - UL Flammability 94V -O

Major Ratings and Characteristics

$I_{F(AV)}$	0.8 A
V_{RRM}	50 V to 1000 V
I_{FSM}	25 A
I_R	5 μ A
V_F	1.1 V
$T_j \text{ max.}$	150 °C

Mechanical Date

- **Case:** SOF2-4 Molded Plastic
- **Terminals:** Solder plated, Solderable per J-STD-002B and JESD22-B102D
- **Polarity:** As Marked on body
- **Marking:** Type Number
- **Lead Free:** For ROHS/Leadfree Version



SOF2-4S

Maximum Ratings & Thermal Characteristics ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Items	Symbol	UMB05S	UMB1S	UMB2S	UMB4S	UMB6S	UMB8S	UMB10S	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	0.8 ¹⁾							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	25							A
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

1): Mounted on glass epoxy P.C.B with 1.2×0.8mm² pads.

Electrical Characteristics ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

Items	Test conditions	Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage	$I_F = 0.8A^{2)}$	V_F	-	0.95	1.1	V
Reverse current	$T_A = 25\text{ }^\circ\text{C}$	I_R	-	-	5	μ A
	$T_A = 125\text{ }^\circ\text{C}$		-	-	100	

2): Pulse test: 300 μ S pulse width, 1% duty cycle.



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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

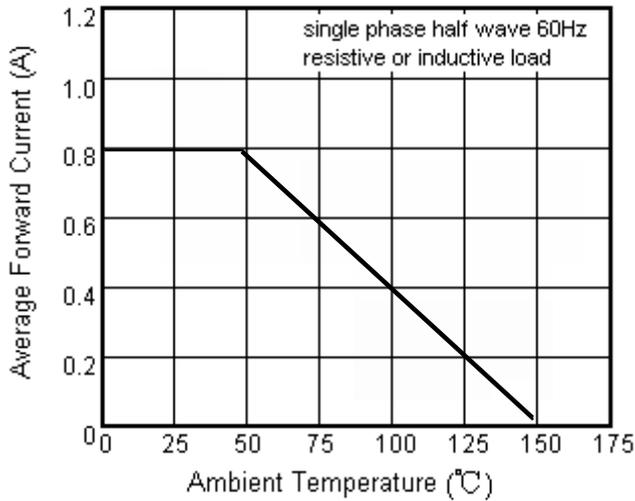


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

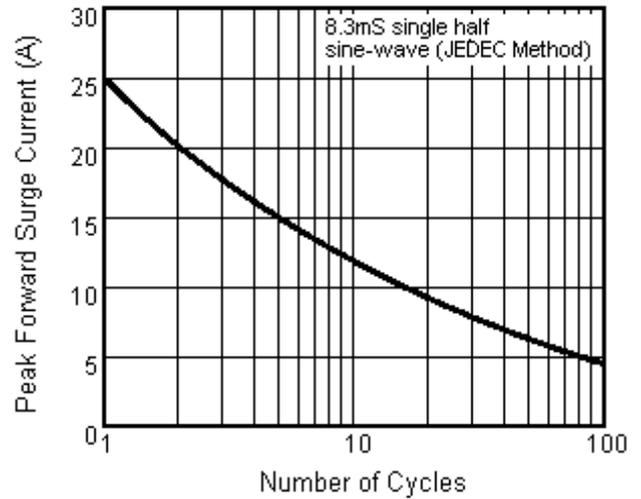


Fig.3 Typical Instantaneous Forward Characteristics

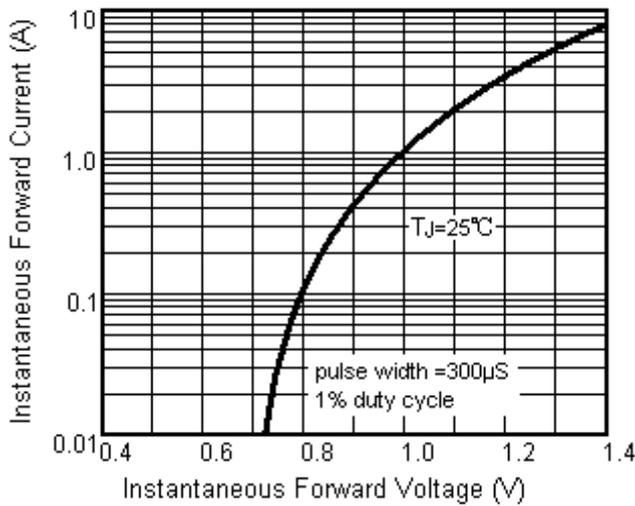
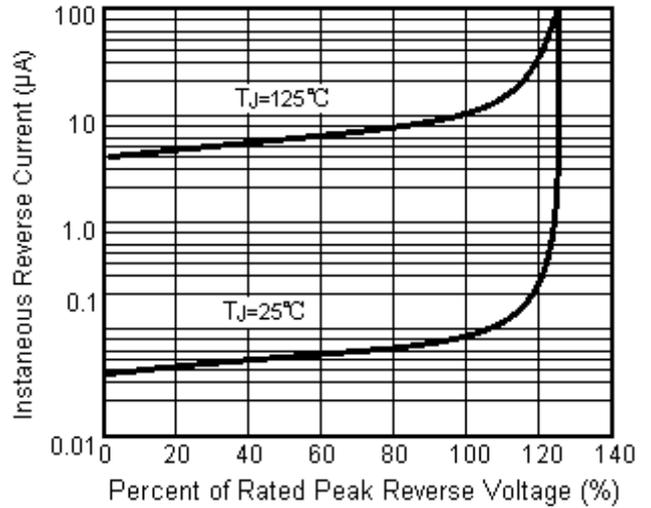


Fig.4 Typical Reverse Characteristics

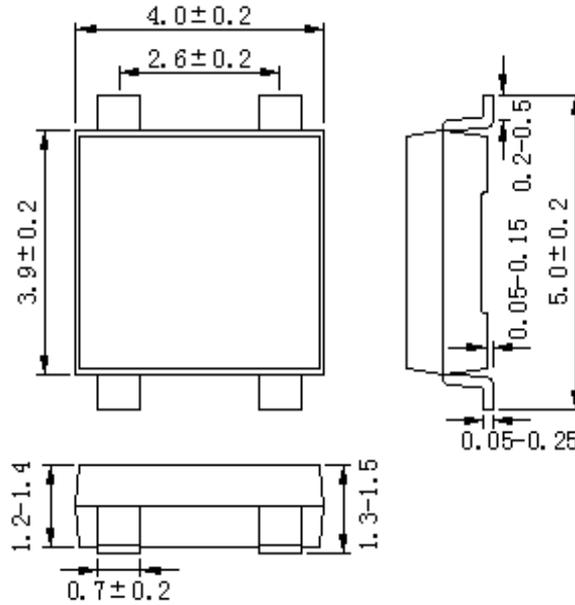




UMB05S~UMB10S

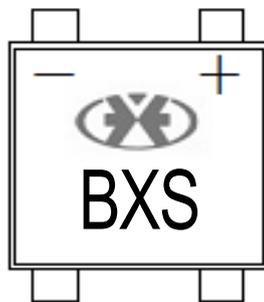
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Package Outline



Marking Code

SOF2-4S



Type	Code
UMB05S	B1S
UMB1S	B2S
UMB2S	B3S
UMB4S	B4S
UMB6S	B5S
UMB8S	B6S
UMB10S	B7S

-  =Trademark;
- BXS =Marking Code, Product Specification, See the table

Soldering Pad

