

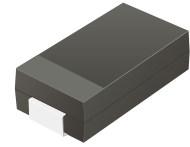
## US3AB-HF Thru. US3MB-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 3 Amp

RoHS Device

Halogen Free



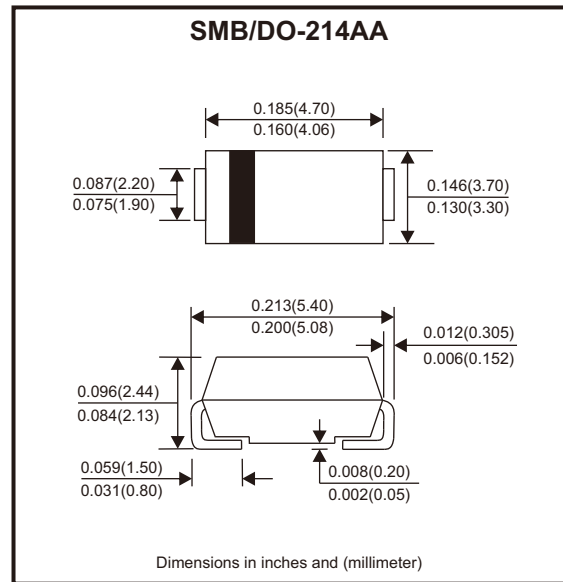
### Features

- For surface mounted applications.
- Low profile package.
- Glass passivated chip junction.
- Easy to pick and place.
- High efficiency.

### Mechanical data

- Case: SMB
- Terminals: Solderable per MIL-STD-750, method 2026.

### Circuit Diagram



### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20%

Parameter	Symbols	US3AB-HF	US3BB-HF	US3DB-HF	US3GB-HF	US3JB-HF	US3KB-HF	US3MB-HF	Units
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	$I_{F(AV)}$	3							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	90							A
Max. instantaneous forward voltage at 3A	$V_F$	1.0		1.3		1.68		V	
Maximum DC reverse current at rated DC blocking voltage	$I_R$	5 100							$\mu A$
Maximum reverse recovery time (Note 1)	$t_{rr}$	50				75			ns
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	45 15							$^{\circ}C/W$
Operating and storage temperature range	$T_j, T_{stg}$	-55 ~ +150							$^{\circ}C$

Notes: 1. Measured with  $I_F = 0.5A$ ,  $I_R = 1A$ ,  $I_{rr} = 0.25A$ .  
2. P.C.B. mounted with 2.0" x 2.0" (5 x 5 cm) copper pad areas.

Company reserves the right to improve product design, functions and reliability without notice.

REV:A

## Rating and Characteristic Curves (US3AB-HF Thru. US3MB-HF)

Fig.1 - Max. Average Forward Current Rating

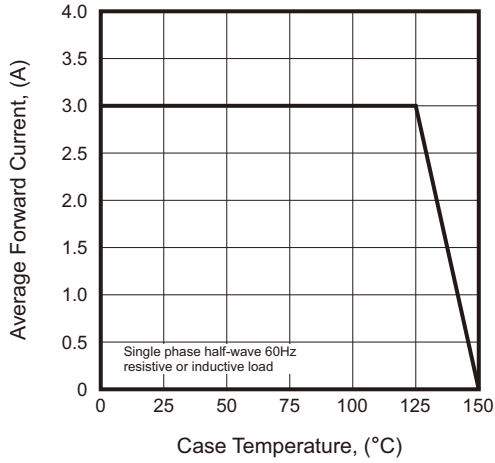


Fig.2 - Typical Reverse Characteristics

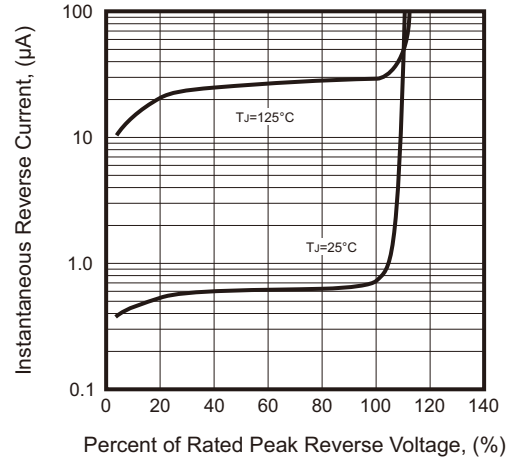


Fig.3 - Typical Forward Characteristic

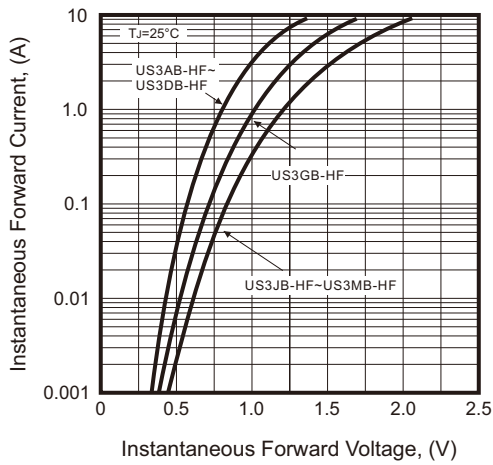
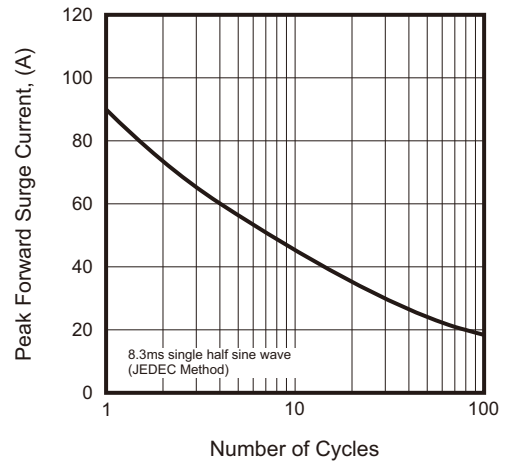
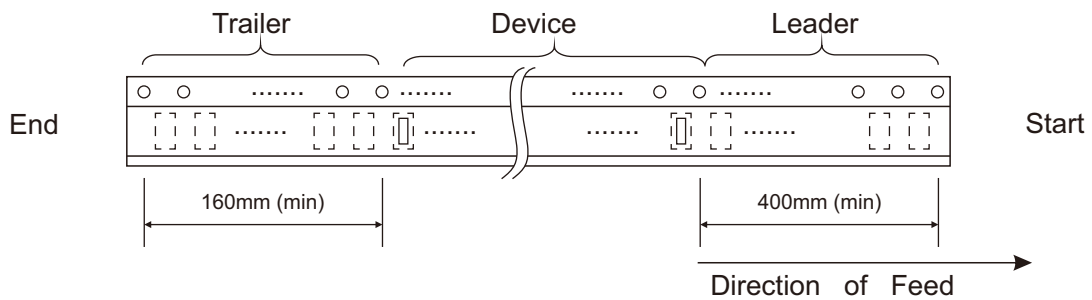
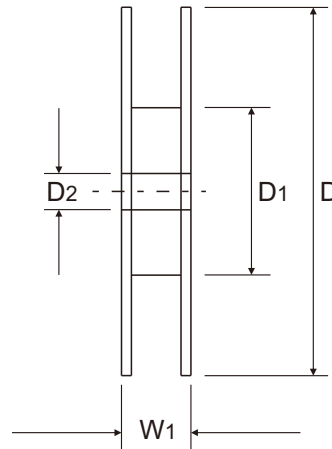
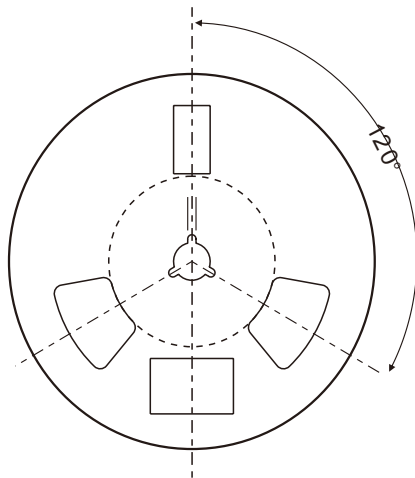
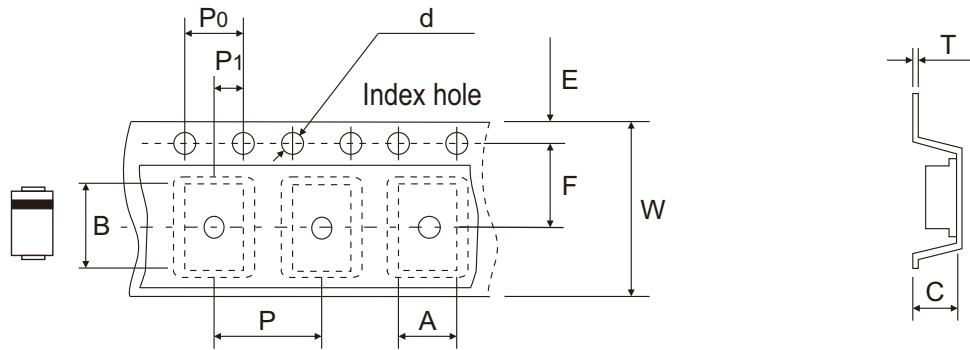


Fig.4 - Maximum Non-Repetitive Peak Forward Surge Current



## Reel Taping Specification



DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.80 ± 0.10	5.50 + 0.05 - 0.10	2.45 ± 0.05	1.55 ± 0.05	330 ± 2.00	100 ± 1.00	13.00 ± 0.20
	(inch)	0.150 ± 0.004	0.217 + 0.002 - 0.004	0.096 ± 0.002	0.061 ± 0.002	12.992 ± 0.079	3.937 ± 0.039	0.512 ± 0.008

DO-214AA (SMB)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.25 ± 0.05	12.00 ± 0.15	18.00 + 2.00 - 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.010 ± 0.002	0.472 ± 0.006	0.709 + 0.079 - 0.039

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