

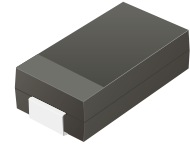
US2AB-HF Thru. US2MB-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 2 Amp

RoHS Device

Halogen Free

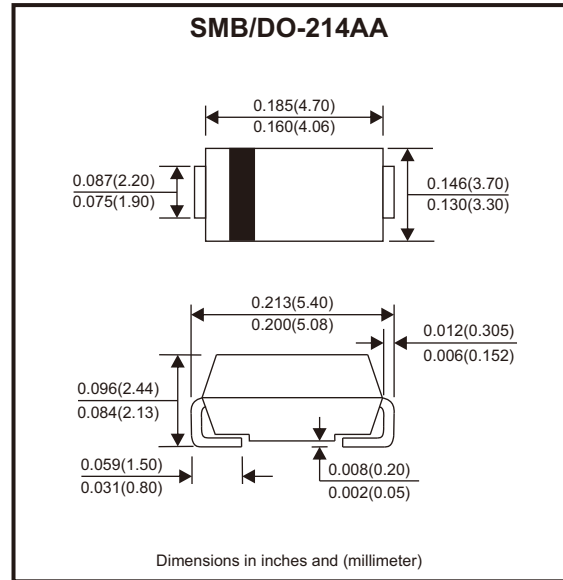


Features

- 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	US2AB -HF	US2BB -HF	US2DB -HF	US2GB -HF	US2JB -HF	US2KB -HF	US2MB -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 at T _c =125°C	I _{F(AV)}	2							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	50							A
Max. instantaneous forward voltage at 2A	V _F	1.0			1.3	1.65			V
Maximum DC reverse current T _a = 25°C at rated DC reverse voltage T _a =125°C	I _R	5 100							μA
Maximum reverse recovery time (Note 1)	t _{rr}	50				75			ns
Typical thermal resistance (Note 2)	R _{θJA}	60							°C/W
Typical junction capacitance at V _R = 4V, f = 1MHz	C _j	20							pF
Operating and storage temperature range	T _j , T _{stg}	-55 ~ +150							°C

Notes: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

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 (US2AB-HF Thru. US2MB-HF)

Fig.1 - Forward Current Derating Curve

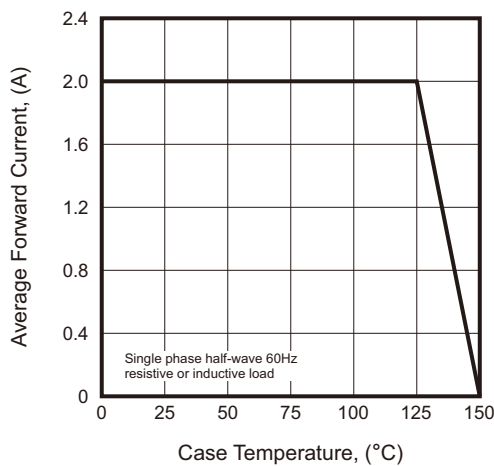


Fig.2 - Typical Reverse Characteristics

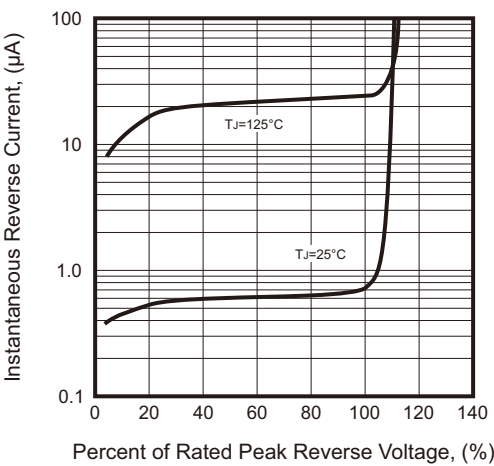


Fig.3 - Typical Forward Characteristic

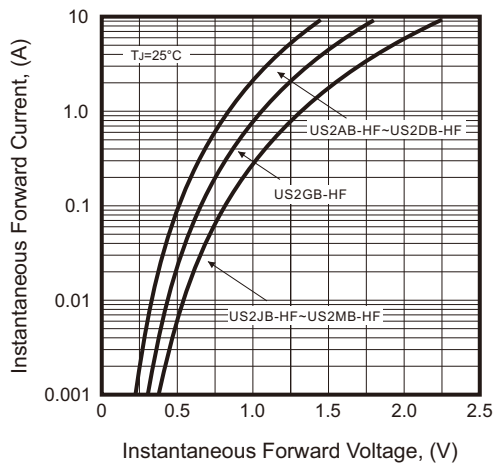
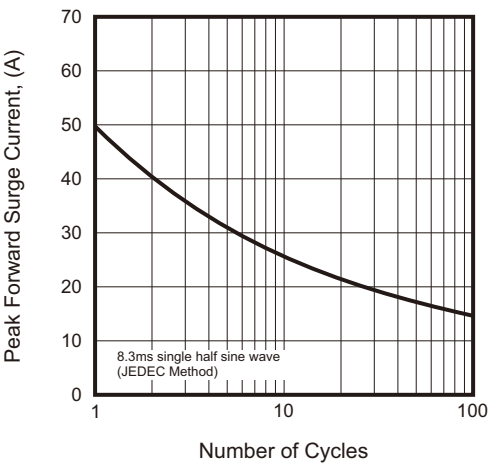
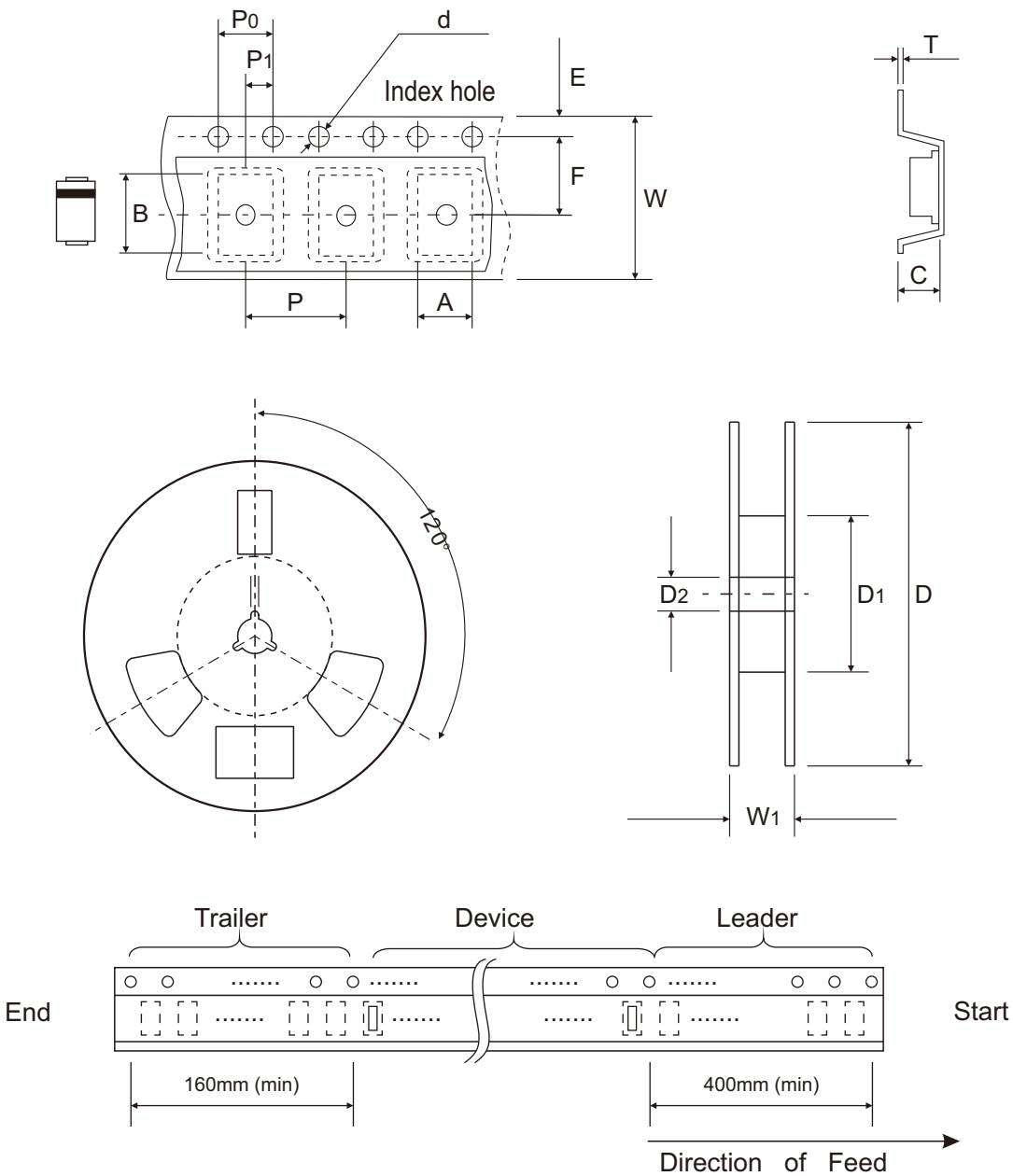


Fig.4 - Maximum Non-Repetitive Peak Forward Surge Current



Reel Taping Specification

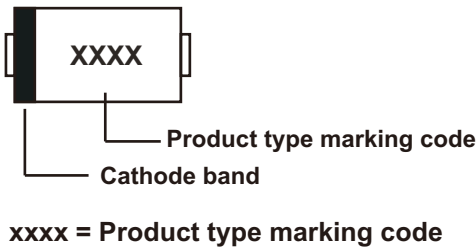


DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.80 ± 0.10	5.50 + 0.05 - 0.10	2.45 ± 0.05	1.55 ± 0.05	330 ± 2.00	100 ± 1.00	13.00 ± 0.20
	(inch)	0.150 ± 0.004	0.217 + 0.002 - 0.004	0.096 ± 0.002	0.061 ± 0.002	12.992 ± 0.079	3.937 ± 0.039	0.512 ± 0.008

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

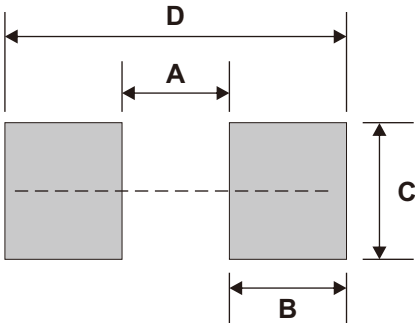
Marking Code

Part Number	Marking Code
US2AB-HF	US2A
US2BB-HF	US2B
US2DB-HF	US2D
US2GB-HF	US2G
US2JB-HF	US2J
US2KB-HF	US2K
US2MB-HF	US2M



Suggested PAD Layout

SIZE	DO-214AA (SMB)	
	(mm)	(inch)
A	2.20	0.087
B	2.40	0.094
C	2.80	0.110
D	7.00	0.276



Note: 1. The pad layout is for reference purpose only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AA (SMB)	3,000	13