

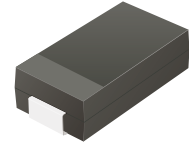
## US2A-HF Thru. US2M-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 2 Amp

RoHS Device

Halogen Free



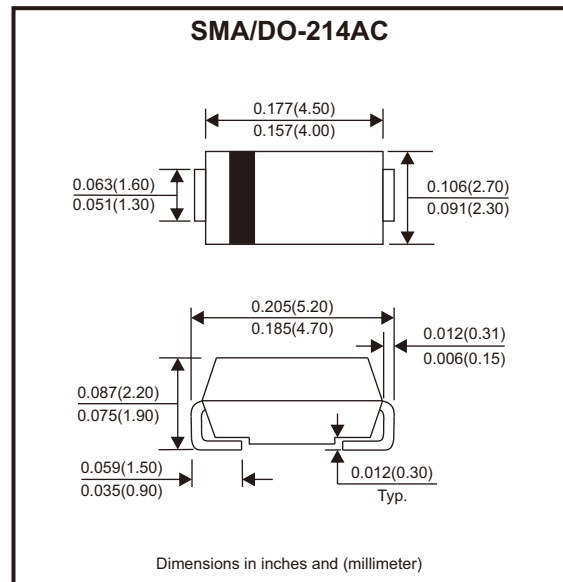
### Features

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

### Mechanical data

- Case: SMA
- 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	US2A -HF	US2B -HF	US2D -HF	US2G -HF	US2J -HF	US2K -HF	US2M -HF	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T <sub>c</sub> = 125°C	I <sub>F(AV)</sub>	2							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	50							A
Max. instantaneous forward voltage at 2A	V <sub>F</sub>	1.0			1.3		1.65		V
Maximum DC reverse current at rated DC blocking voltage T <sub>a</sub> = 25°C T <sub>a</sub> = 125°C	I <sub>R</sub>	5 100							μA
Maximum reverse recovery time (Note 1)	t <sub>rr</sub>	50				75			ns
Typical thermal resistance (Note 2)	R <sub>θJA</sub> R <sub>θJC</sub>	65 20							°C/W
Operating and storage temperature range	T <sub>J</sub> , T <sub>stg</sub>	-55 ~ +150							°C

Notes: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1A, I<sub>rr</sub> = 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 (US2A-HF Thru. US2M-HF)

Fig.1 - Forward Current Derating Curve

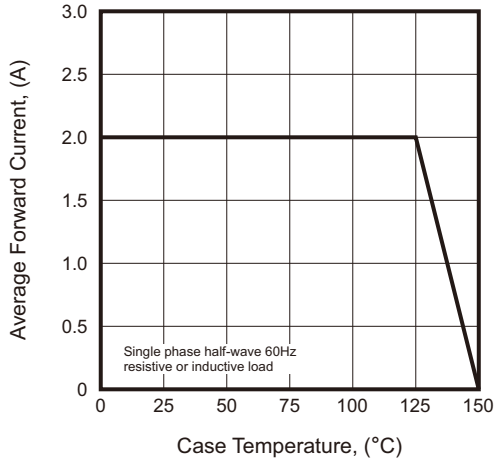


Fig.2 - Typical Reverse Characteristics

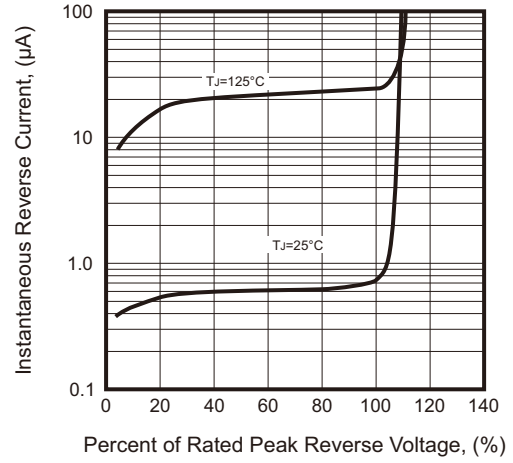


Fig.3 - Typical Forward Characteristic

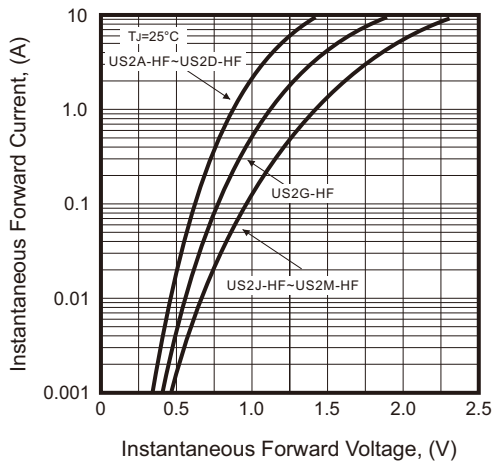
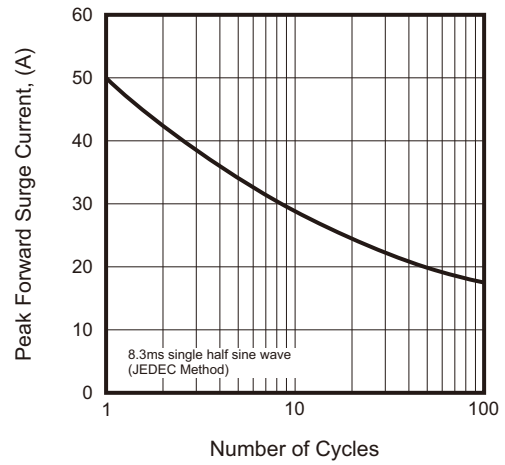
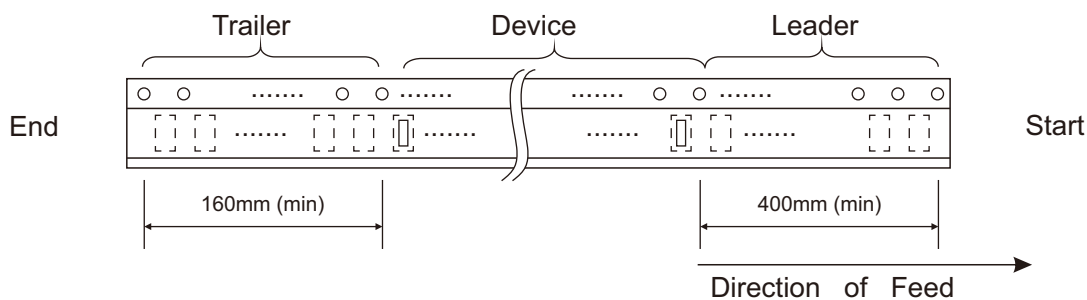
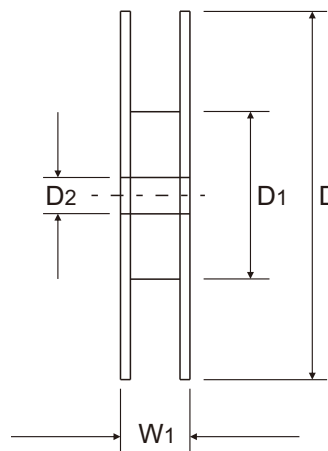
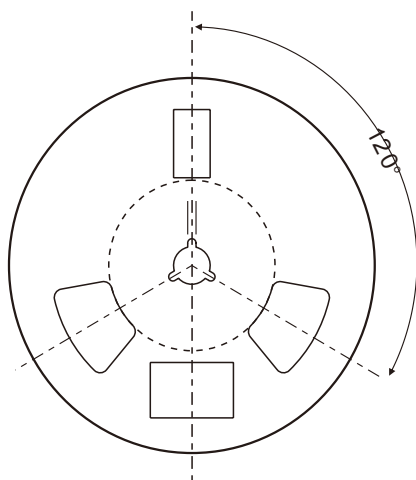
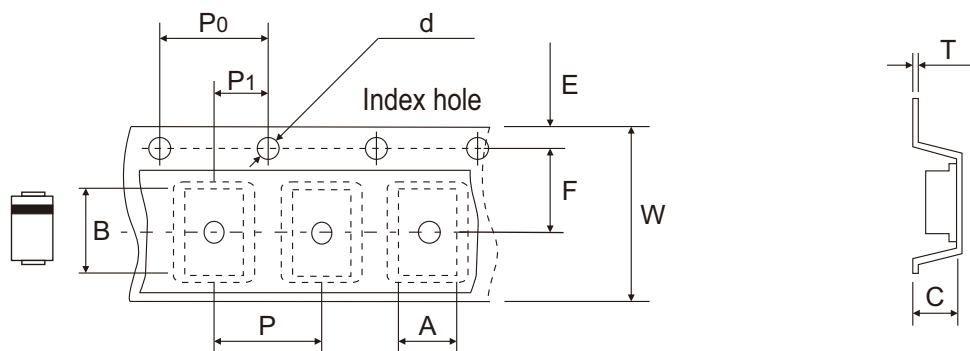


Fig.4 - Maximum Non-Repetitive Peak Forward Surge Current



## Reel Taping Specification



DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.70 ± 0.10	5.33 ± 0.10	2.35 ± 0.10	1.55 ± 0.05	330 ± 2.00	75.00 ± 1.00	13.00 ± 0.20
	(inch)	0.106 ± 0.004	0.210 ± 0.004	0.093 ± 0.004	0.061 ± 0.002	12.992 ± 0.079	2.953 ± 0.039	0.512 ± 0.008

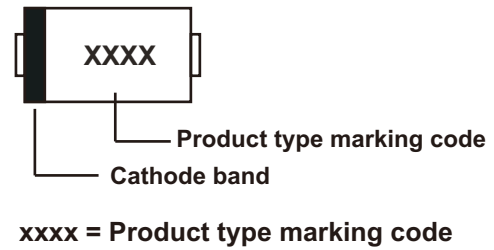
DO-214AC (SMA)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.20 ± 0.03	12.00 ± 0.30	14.70 + 2.00 - 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.008 ± 0.001	0.472 ± 0.012	0.579 + 0.079 - 0.039

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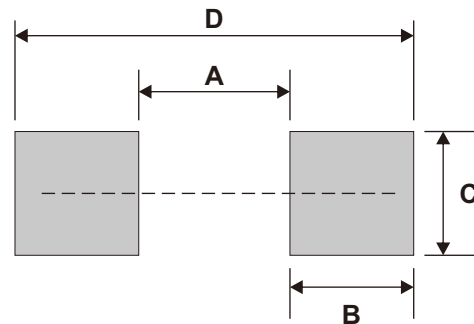
## Marking Code

Part Number	Marking Code
US2A-HF	US2A
US2B-HF	US2B
US2D-HF	US2D
US2G-HF	US2G
US2J-HF	US2J
US2K-HF	US2K
US2M-HF	US2M



## Suggested PAD Layout

SIZE	DO-214AC (SMA)	
	(mm)	(inch)
A	2.40	0.094
B	1.80	0.071
C	1.80	0.071
D	6.00	0.236



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

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DO-214AC (SMA)	5,000	13

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