

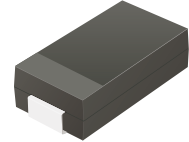
## ACURA101-HF Thru. ACURA107-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

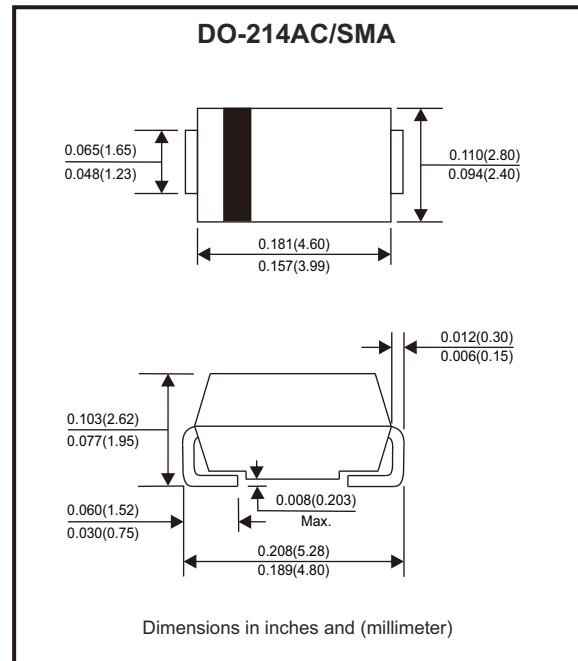


### Features

- Glass passivation junction.
- Low profile package.
- Ideal for automated placement.
- Low reverse recovery time.
- AEC-Q101 Qualified.

### Mechanical data

- Cases: DO-214AC/SMA.
- Case Material: Molded plastic. UL flammability classification rating 94V-0
- Terminals: Lead free plating (Tin finish), Solderable per MIL-STD-202, method 208.
- Polarity: Cathode band.
- Weight: 0.062 grams (approx.).



### Circuit Diagram



### Maximum Rating and Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Symbol	ACURA 101-HF	ACURA 102-HF	ACURA 103-HF	ACURA 104-HF	ACURA 105-HF	ACURA 106-HF	ACURA 107-HF	Unit	
Max. repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Max. RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Max. DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V	
Max. average forward rectified current	I <sub>F</sub>	1.0								A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30								A
Max. Instantaneous forward voltage I <sub>F</sub> =1A @25°C	V <sub>F</sub>	1.0			1.3	1.7			V	
Max. DC reverse current @ TA=25°C at rated DC blocking voltage @ TA=100°C	I <sub>R</sub>					5 100				μA
Typical junction capacitance (Note 1)	C <sub>j</sub>	15							pF	
Max. reverse recovery time (Note 2)	T <sub>rr</sub>	50					75			nS
Typical thermal resistance	R <sub>θJC</sub>	60							°C/W	
Operating temperature range	T <sub>J</sub>	-55 to +150							°C	
Storage temperature range	T <sub>STG</sub>	-55 to +150							°C	

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1A, I<sub>RR</sub> = 0.25A.

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REV:B

## Rating and Characteristic Curves (ACURA101-HF Thru. ACURA107-HF)

Fig.1 - Typical Forward Current Derating Curve

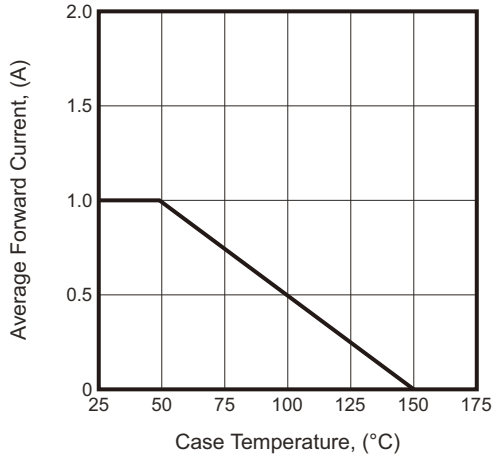


Fig.2 - Maximum Non-Repetitive Forward Surge Current

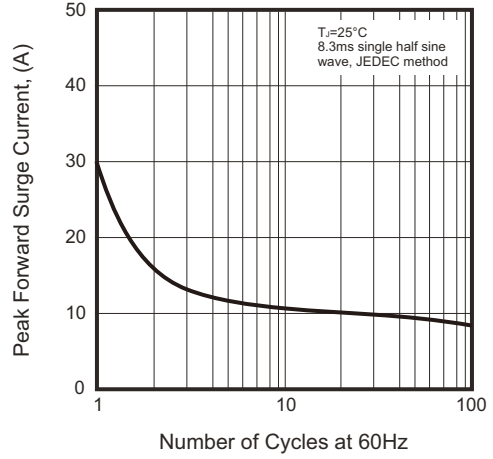


Fig.3 - Typical Forward Characteristics

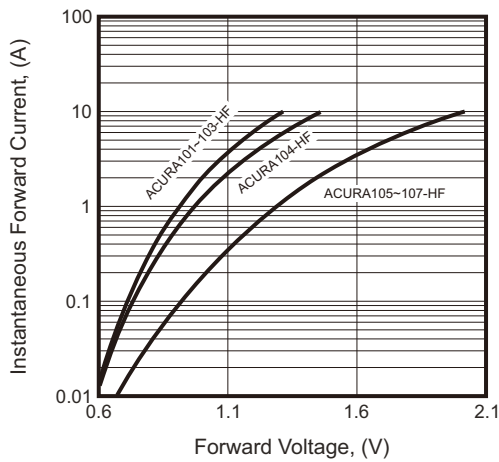


Fig.4 - Typical Reverse Characteristics

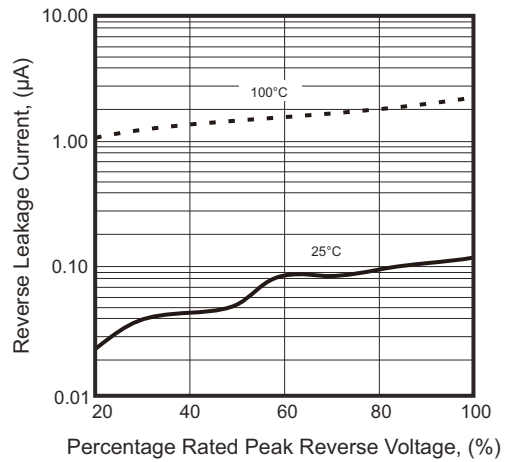


Fig.5 - Typical Junction Capacitance

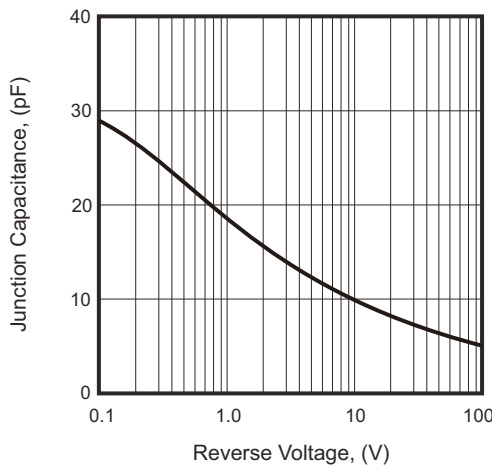
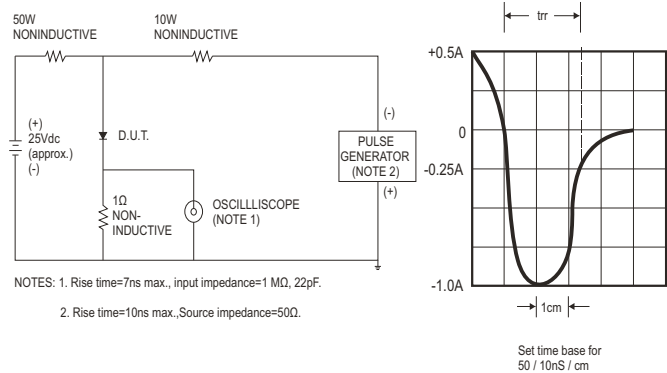


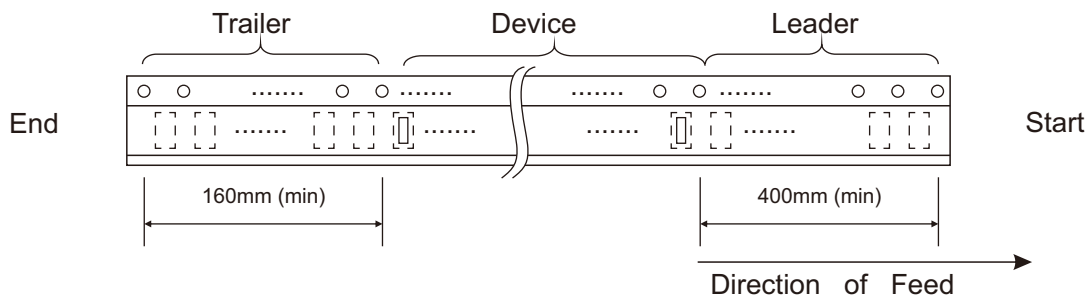
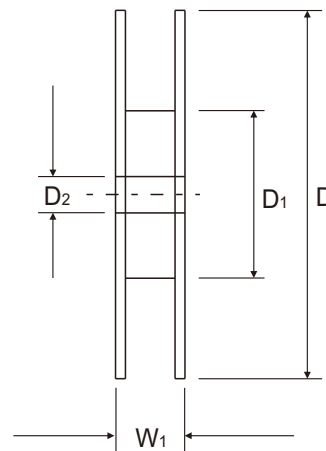
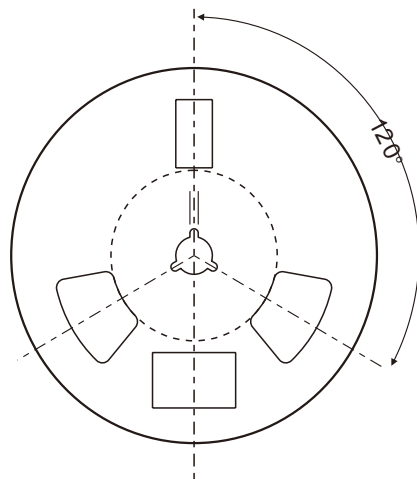
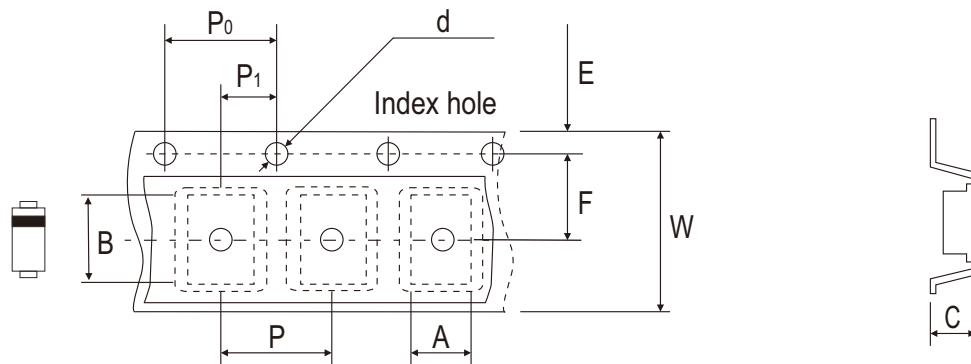
Fig.6 - Test Circuit Diagram and Reverse Recovery Time Characteristic



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## Reel Taping Specification



DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	2.90 MAX.	5.90 MAX.	2.66 MAX.	1.50 ± 0.10	330.00 ± 2.00	50 MIN.	13.50 ± 1.00
	(inch)	0.114 MAX.	0.232 MAX.	0.105 MAX.	0.059 ± 0.004	13.00 ± 0.079	1.969 MIN.	0.531 ± 0.039

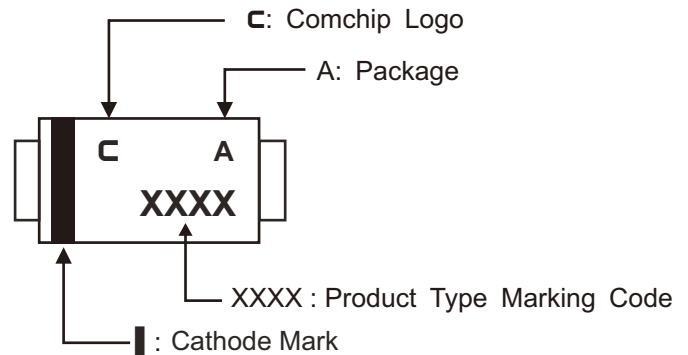
DO-214AC (SMA)	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	12.00 ± 0.30	18.40 MAX.
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.472 ± 0.012	0.724 MAX.

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REV:B

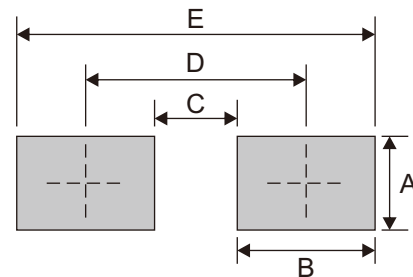
## Marking Code

Part Number	Marking Code
ACURA101-HF	U101
ACURA102-HF	U102
ACURA103-HF	U103
ACURA104-HF	U104
ACURA105-HF	U105
ACURA106-HF	U106
ACURA107-HF	U107



## Suggested P.C.B. PAD Layout

SIZE	DO-214AC (SMA)	
	(mm)	(inch)
A	1.70	0.067
B	2.50	0.098
C	1.50	0.059
D	4.00	0.157
E	6.50	0.256



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

## Standard Packaging

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