

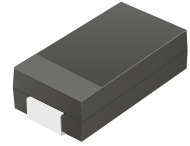
## ACURA107-HF

Reverse Voltage: 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

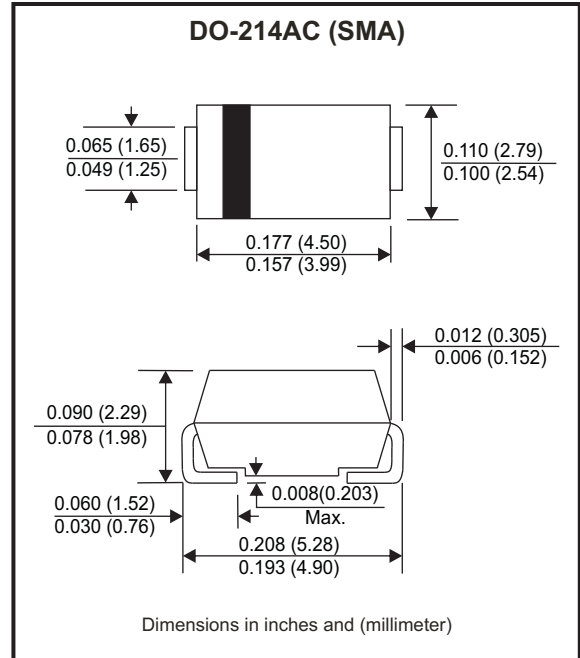


### Features

- Glass Passivation Junction.
- Low profile package.
- Ideal for automated placement.
- Low reverse recovery time
- Comply with AEC-Q101

### 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 Ratings (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Maximum repetitive peak reverse voltage		$V_{RRM}$	1000	V
Maximum RMS voltage		$V_{RMS}$	700	V
Maximum DC blocking voltage		$V_{DC}$	1000	V
Maximum average forward rectified current		$I_F$	1.0	A
Peak forward surge current	8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30	A
Maximum Reverse recovery time	$I_F=0.5A, I_R=1A, I_{RR}=0.25A$	$T_{rr}$	75	nS
Operating temperature range		$T_J$	-55 to +150	°C
Storage temperature range		$T_{STG}$	-55 to +150	°C

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

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Instantaneous forward voltage	$I_F=1.0A @25^\circ C$	$V_F$			1.7	V
Maximum DC reverse current at rated DC blocking voltage	@ TA=25°C	$I_R$			5	uA
	@ TA=100°C				100	
Junction capacitance	$V_R=4V DC, f=1.0MHZ$	$C_J$		15		pF
Thermal Resistance	Junction to case	$R_{\theta JC}$		60		°C/W

## RATING AND CHARACTERISTIC CURVES (ACURA107-HF)

Fig.1 - Typical Forward Current Derating Curve

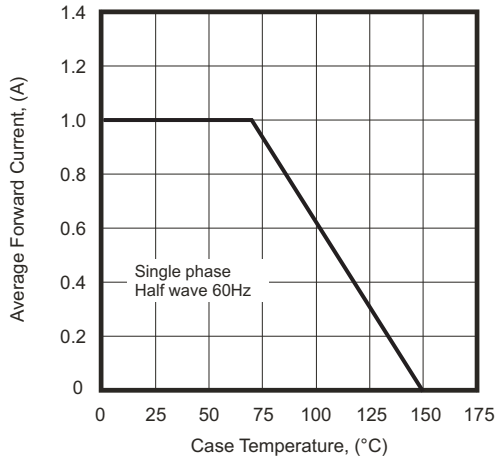


Fig.2 - Maximum Non-Repetitive Forward Surge Current

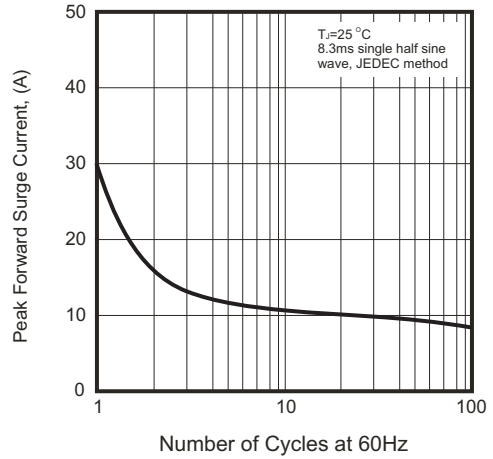


Fig.3 - Typical Instantaneous Forward Characteristics

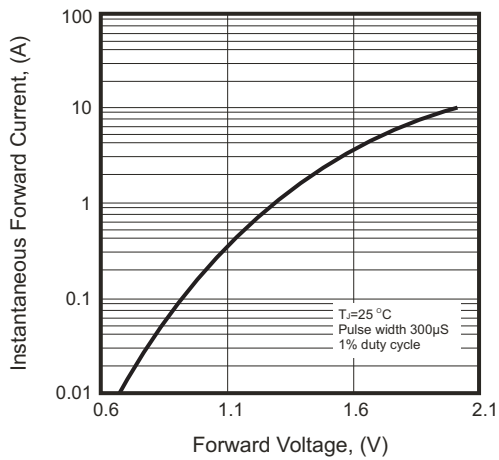


Fig.4 - Typical Reverse Characteristics

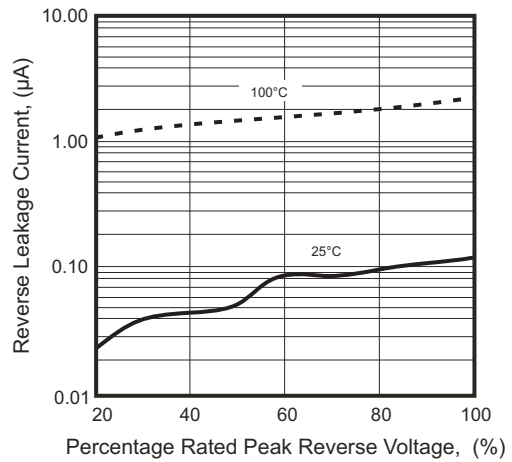


Fig.5 - Junction Capacitance

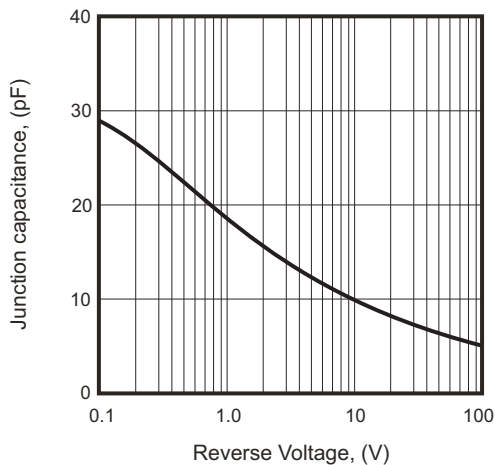
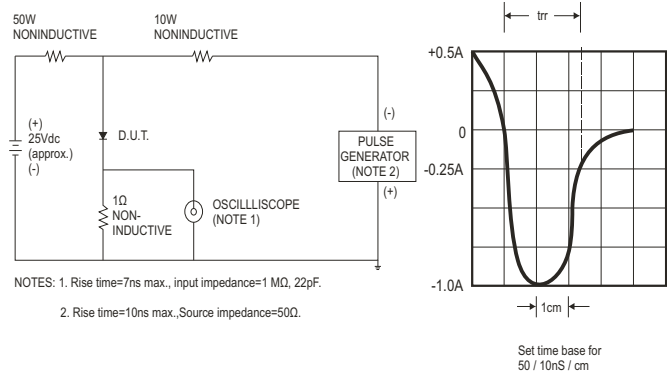
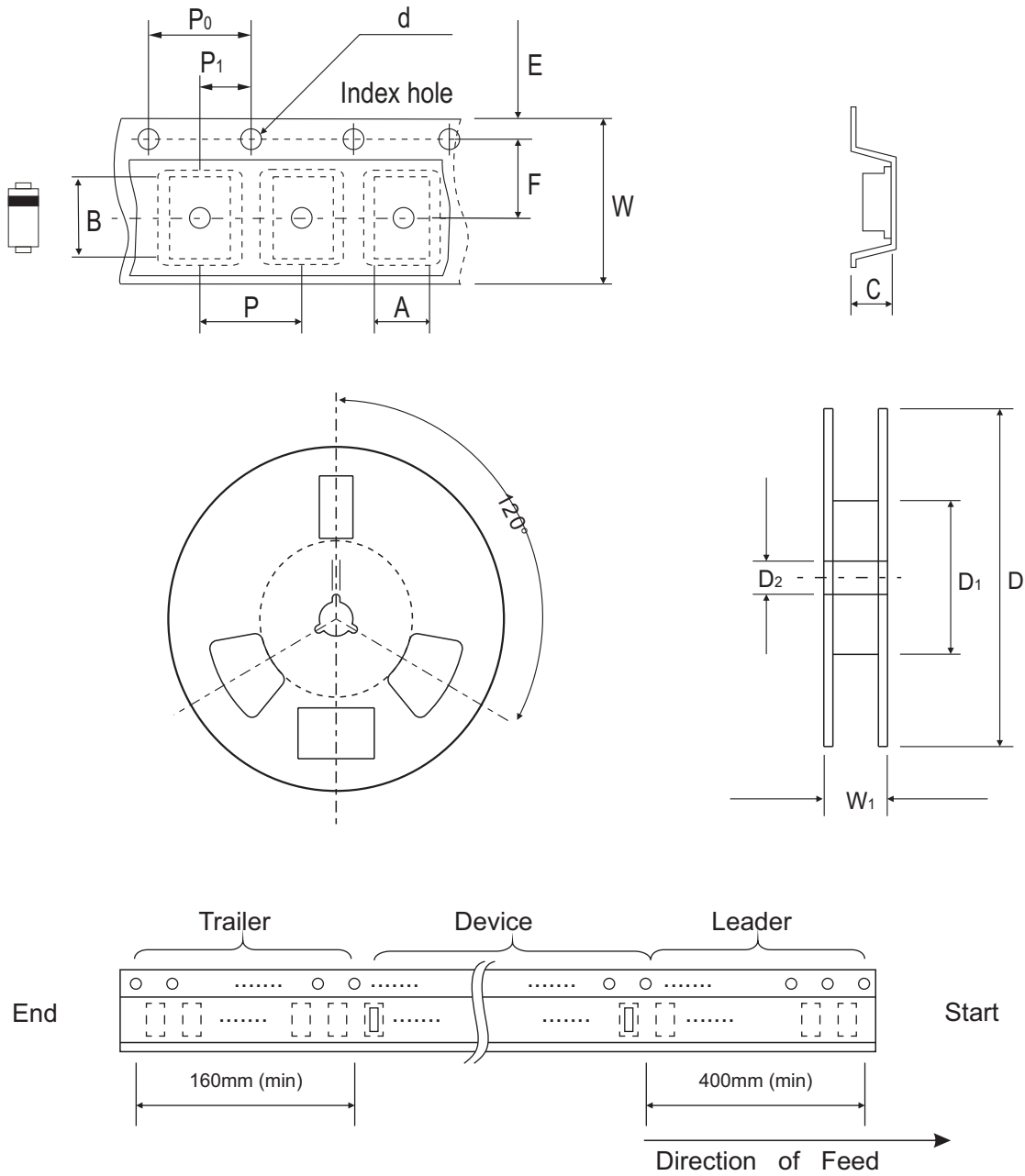


Fig.6 - Test Circuit Diagram and Reverse Recovery Time Characteristic



## 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

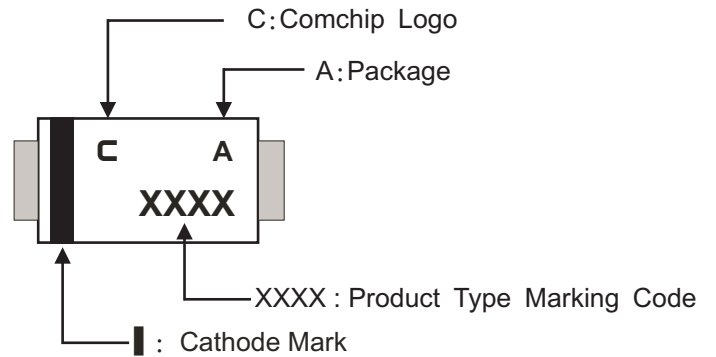
DO-214AC (SMA)	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	12.00 ± 0.30	18.40 MAX.
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.472 ± 0.012	0.724 MAX.

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

REV:A

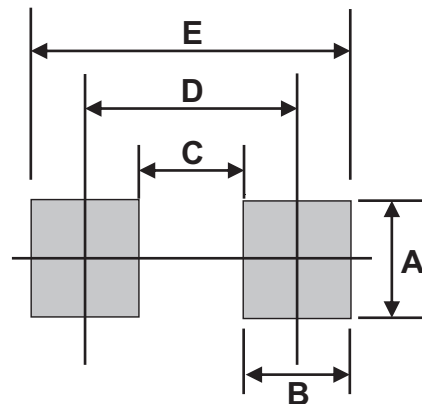
## Marking Code

Part Number	Marking Code
ACURA107-HF	U107



## Suggested 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

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