

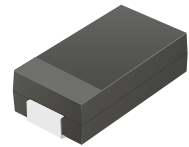
ACURA107-HF

Reverse Voltage: 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

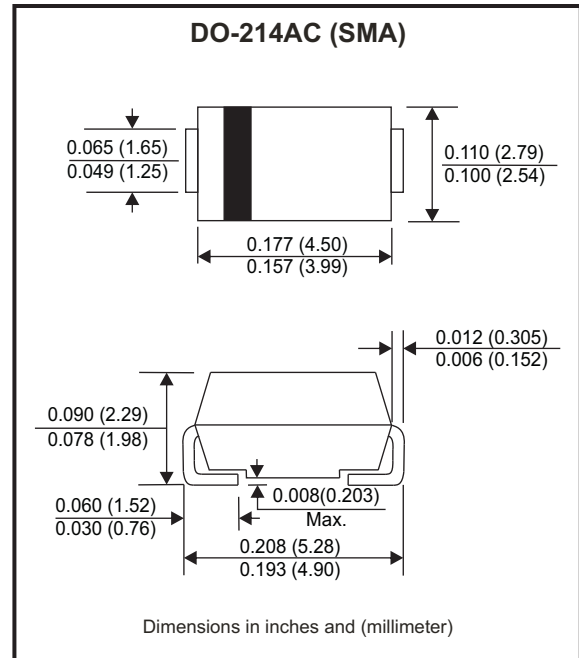


Features

- 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 $T_A=25^{\circ}\text{C}$ 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	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

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

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

REV:A

RATING AND CHARACTERISTIC CURVES (ACURA107-HF)

Fig.1 - Typical Forward Current Derating Curve

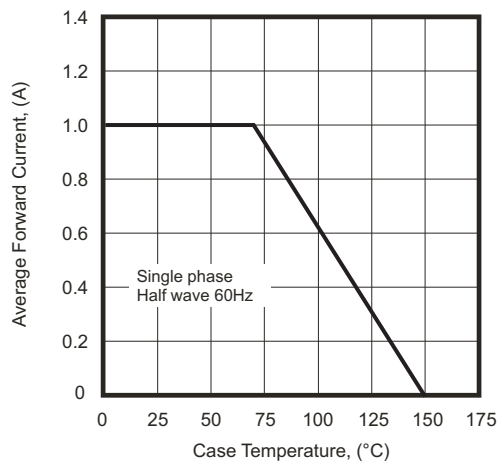


Fig.2 - Maximum Non-Repetitive Forward Surge Current

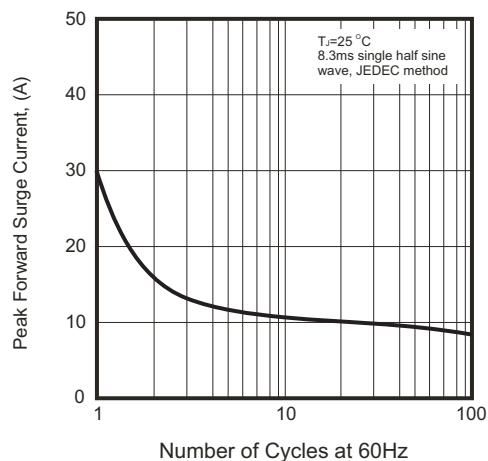


Fig.3 - Typical Instantaneous Forward Characteristics

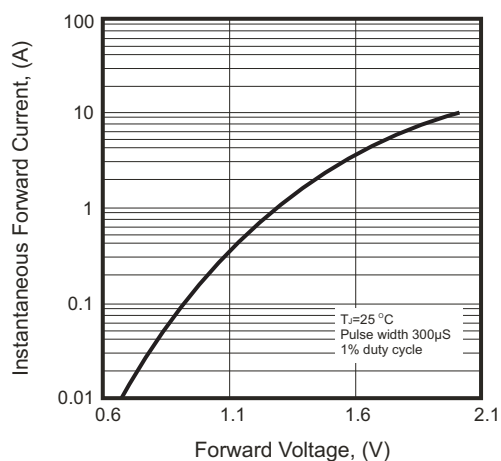


Fig.4 - Typical Reverse Characteristics

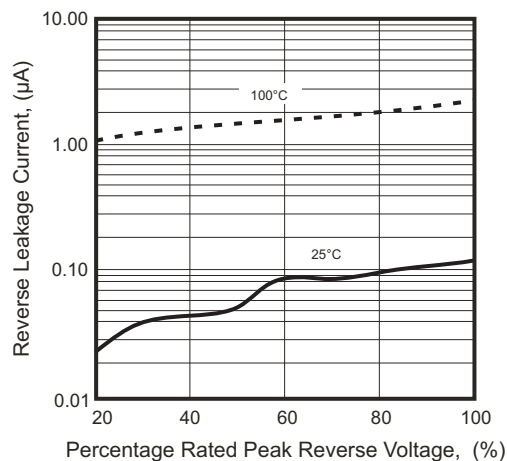


Fig.5 - Junction Capacitance

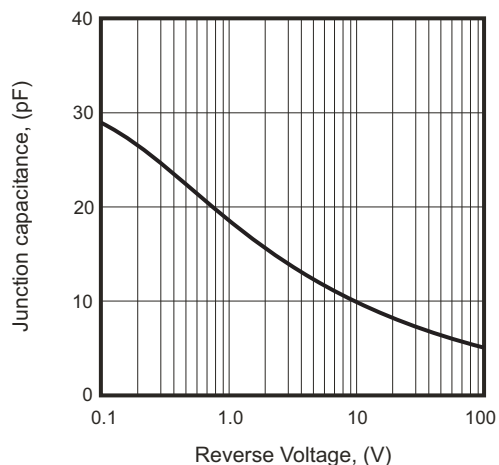
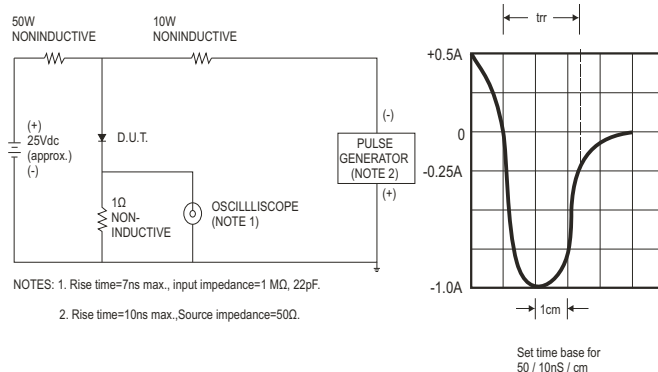
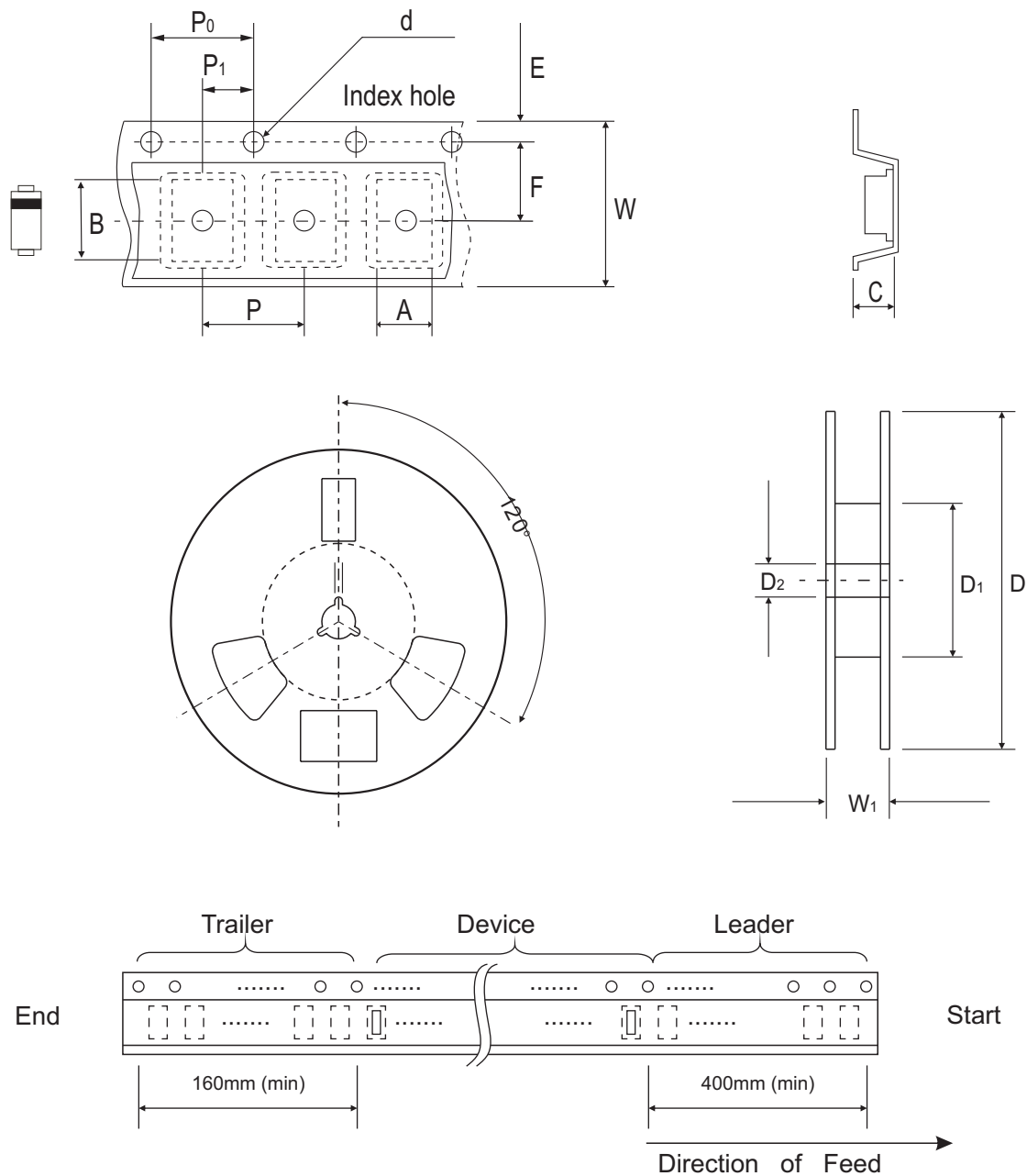


Fig.6 - Test Circuit Diagram and Reverse Recovery Time Characteristic



Reel Taping Specification

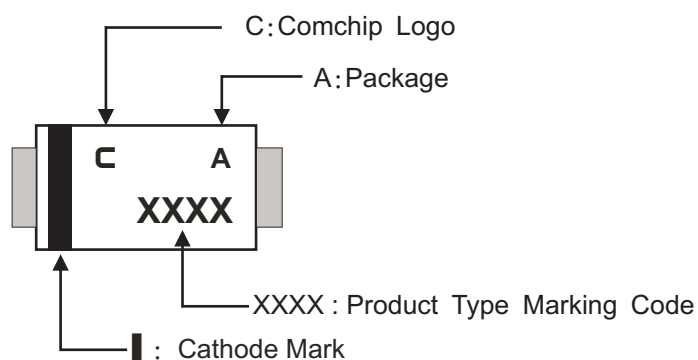


DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.90 MAX.	5.90 MAX.	2.66 MAX.	1.50 ± 0.10	330.00 ± 2.00	50 MIN.	13.50 ± 1.00
	(inch)	0.114 MAX.	0.232 MAX.	0.105 MAX.	0.059 ± 0.004	13.00 ± 0.079	1.969 MIN.	0.531 ± 0.039

DO-214AC (SMA)	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(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.

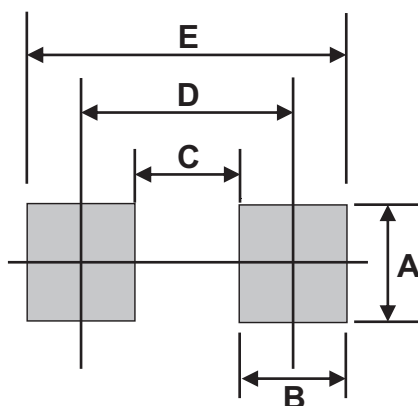
Marking Code

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