

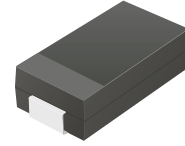
## ACGRA4001-HF Thru. ACGRA4007-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

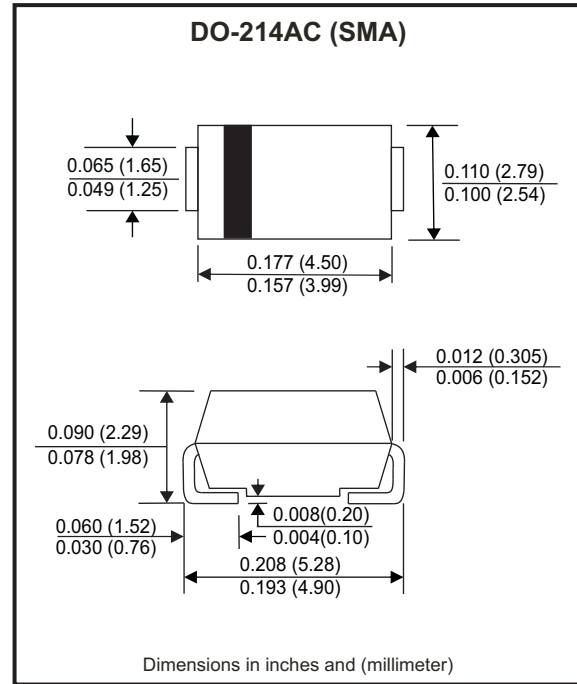


### Features

- Glass Passivation Junction.
- High current capability.
- High surge current capability.
- Low reverse current.
- Comply with AEC-Q101

### Mechanical data

- Case: DO-214AC / SMA, molded plastic.
- Epoxy: UL flammability classification rate 94V-0.
- Terminals: Lead free plating (Tin finish).  
Solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.062 grams(approx.).



### Circuit diagram



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

Parameter	Symbol	ACGRA 4001-HF	ACGRA 4002-HF	ACGRA 4003-HF	ACGRA 4004-HF	ACGRA 4005-HF	ACGRA 4006-HF	ACGRA 4007-HF	Units	
Max. repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Max. DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V	
Max. RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30							A	
Max. average forward rectified current	I <sub>F</sub>	1.0							A	
Max. instantaneous forward voltage I <sub>F</sub> =1.0A @ 25°C	V <sub>F</sub>	1.1							V	
Max. DC reverse current at rated	I <sub>R</sub>	T <sub>A</sub> =25°C	5							μA
DC blocking voltage		T <sub>A</sub> =100°C	50							
Typical junction capacitance (Note 1)	C <sub>J</sub>	10							pF	
Typical thermal resistance	R <sub>θJC</sub>	70							°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.

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

REV: B

## Rating and Characteristic Curves (ACGRA4001-HF thru. ACGRA4007-HF)

Fig.1 - Typical Forward Current Derating Curve

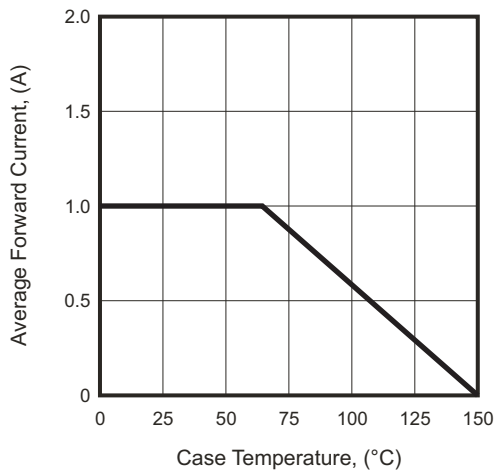


Fig.2 - Typical Forward Characteristics

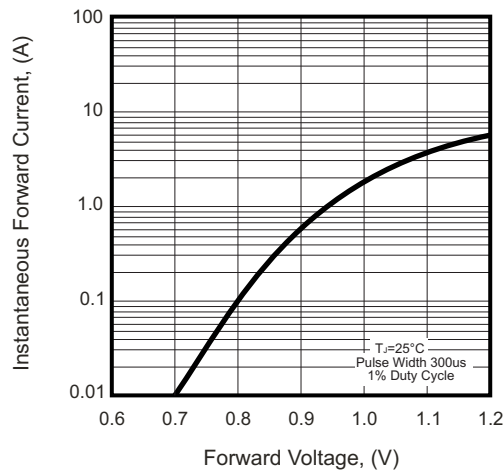


Fig.3 - Maximum Non-repetitive Forward Surge Current

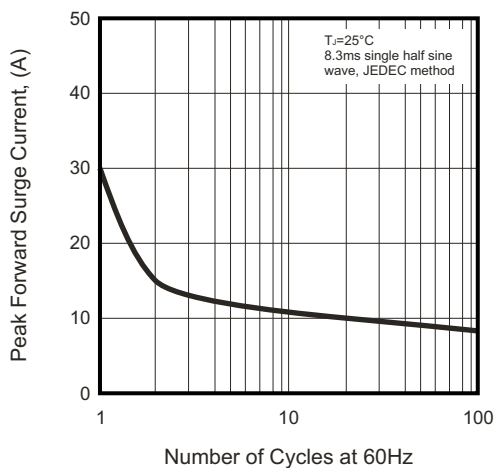


Fig.4 - Typical Reverse Characteristics

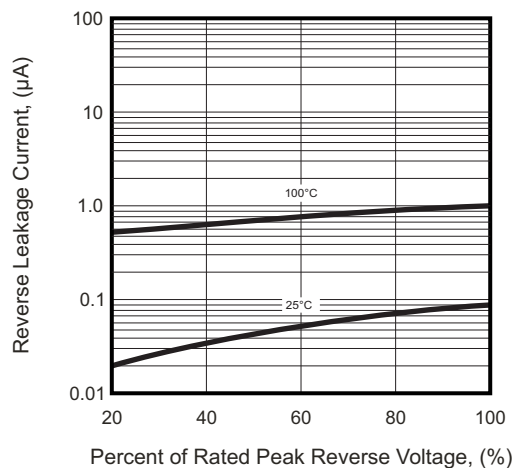
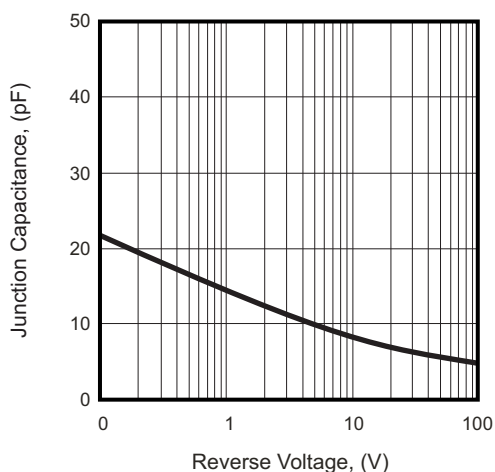


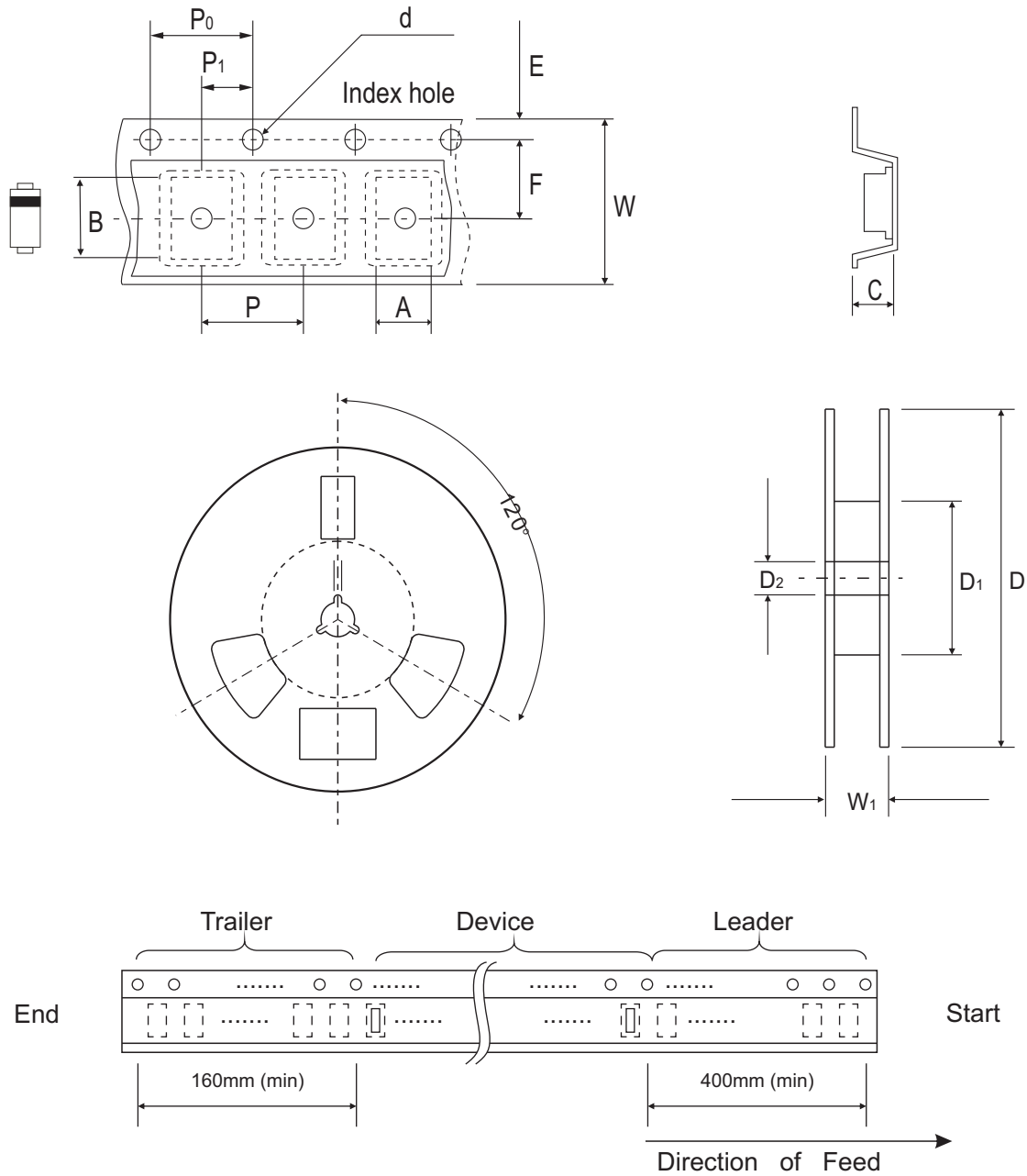
Fig.5 - Typical Junction Capacitance



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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 ± 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

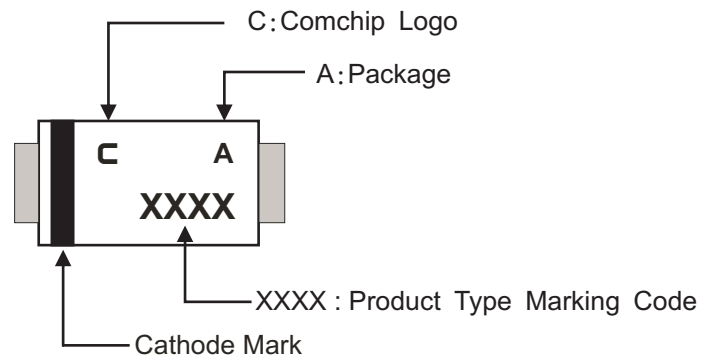
DO-214AC (SMA)	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	12.00 ± 0.30	18.40 MAX.
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.472 ± 0.012	0.724 MAX.

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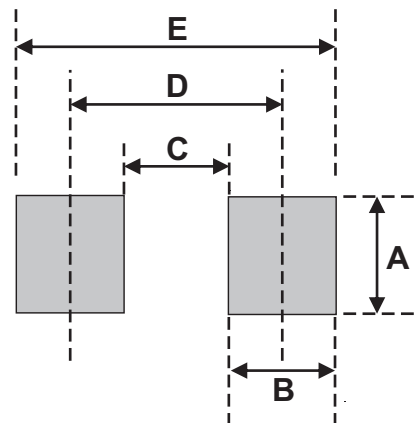
## Marking Code

Part Number	Marking code
ACGRA4001-HF	4001
ACGRA4002-HF	4002
ACGRA4003-HF	4003
ACGRA4004-HF	4004
ACGRA4005-HF	4005
ACGRA4006-HF	4006
ACGRA4007-HF	4007



## 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