



**THE DATASHEET OF  
ACDBC340-HF**



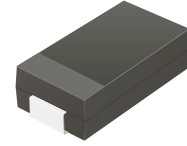
## ACDBC340-HF Thru. ACDBC3100-HF

Reverse Voltage: 40 to 100 Volts

Forward Current: 3.0 Amp

RoHS Device

Halogen Free

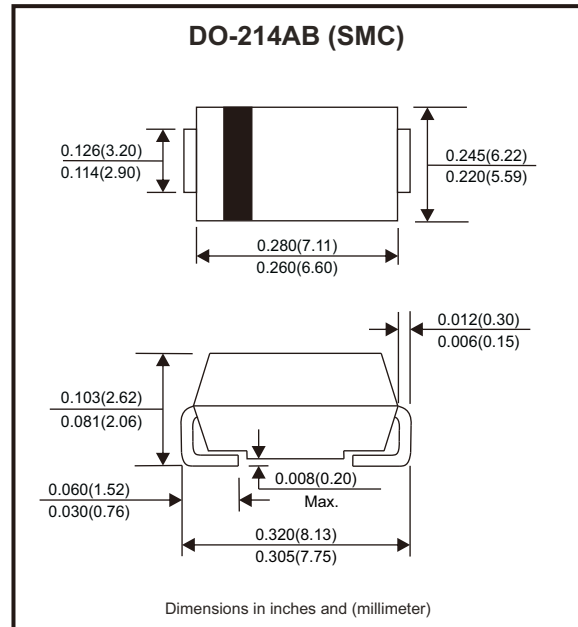


### Features

- Low profile package.
- Ideal for automated placement.
- Guard ring for over voltage protection.
- Low forward voltage drop.
- Comply with AEC-Q101

### Mechanical data

- Case: DO-214AB / SMC, molded plastic.
- Epoxy: UL flammability classification rate 94V-0.
- Terminals: Lead free plating (Tin finish).  
Solderable per MIL-STD-202, Method 208.
- Polarity: Indicated by cathode band.



### Circuit Diagram



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

Parameter	Symbol	ACDBC340-HF	ACDBC360-HF	ACDBC3100-HF	Unit
Max. Repetitive peak reverse voltage	$V_{RRM}$	40	60	100	V
Max. RMS voltage	$V_{RMS}$	28	42	70	V
Max. DC blocking voltage	$V_{DC}$	40	60	100	V
Max. Average forward rectified current	$I_F$	3			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	80			A
Max. Instantaneous forward voltage $I_F=3A @ 25^\circ C$	$V_F$	0.55	0.70	0.85	V
Max. DC reverse current @ $T_J=25^\circ C$ at rated DC blocking voltage @ $T_J=100^\circ C$	$I_R$	0.5 10		0.2 5	mA
Typical junction capacitance (Note 1)	$C_j$	150		95	pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	55			$^\circ C/W$
Typical thermal resistance (Note 2)	$R_{\theta JC}$	25			$^\circ C/W$
Operating temperature range	$T_J$	-55 to +125		-55 to +150	$^\circ C$
Storage temperature range	$T_{STG}$	-55 to +150			$^\circ C$

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC

2. Device mounted on FR4 substrate, 0.4" x 0.5", 2oz, single-sided, PC boards with 0.2" x 0.25" copper pad.

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## Rating and Characteristic Curves (ACDBC340-HF thru. ACDBC3100-HF)

Fig.1 - Typical Forward Current Derating Curve

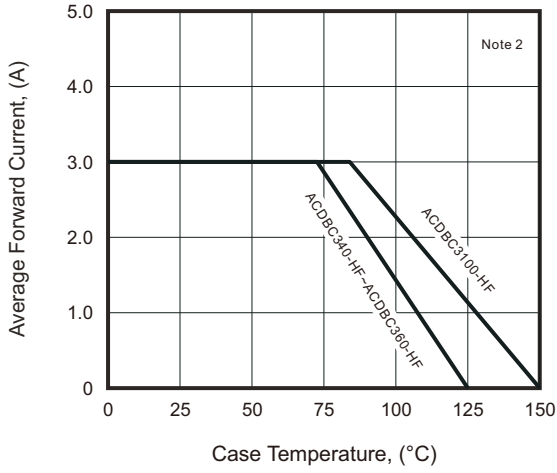


Fig.2 - Typical Forward Characteristics

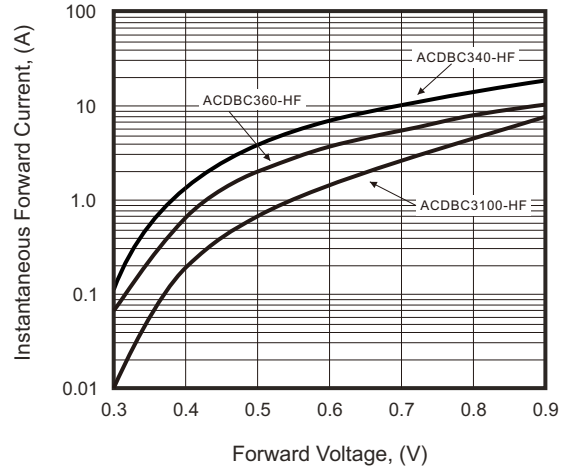


Fig.3 - Maximum Non-Repetitive Forward Surge Current

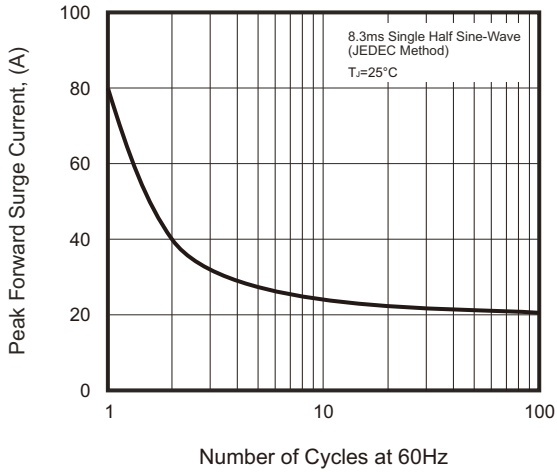


Fig.4 - Typical Reverse Characteristics

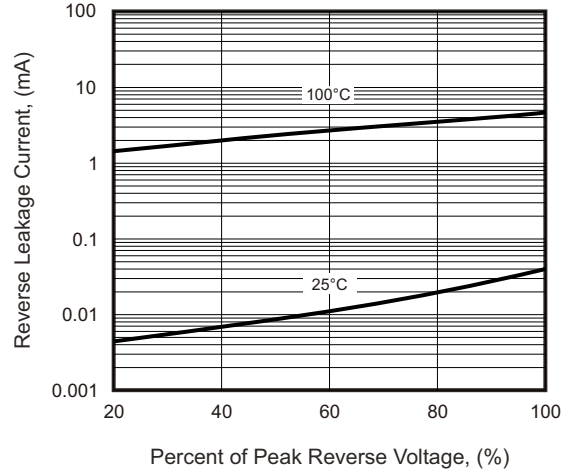
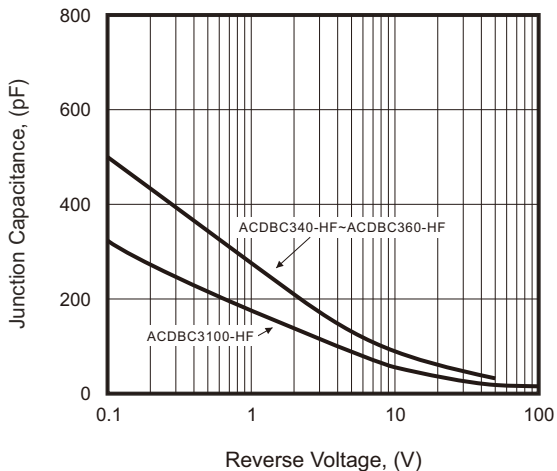


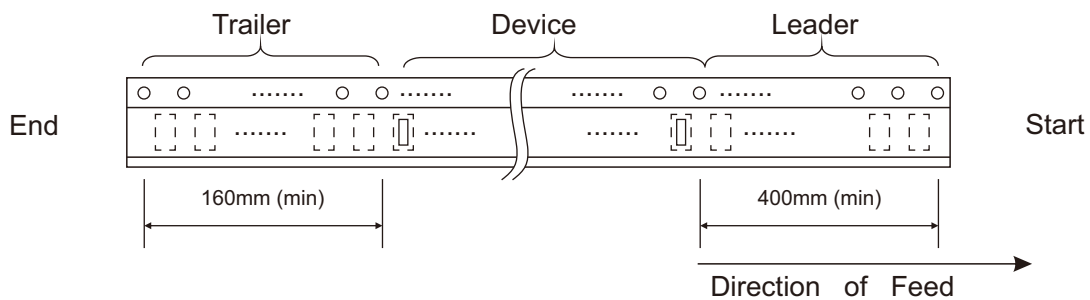
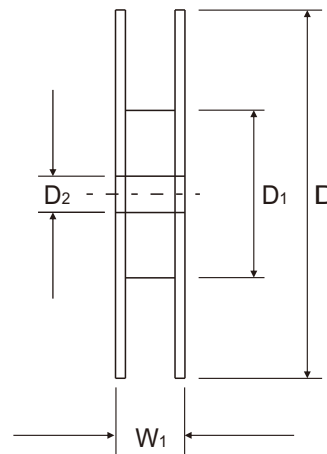
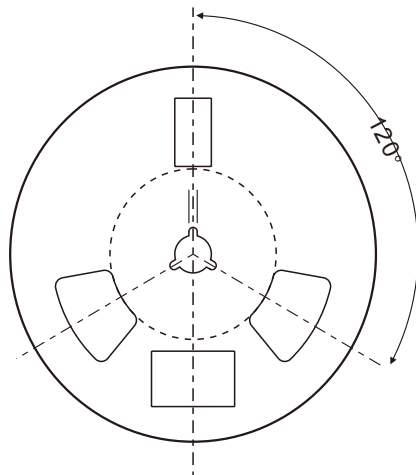
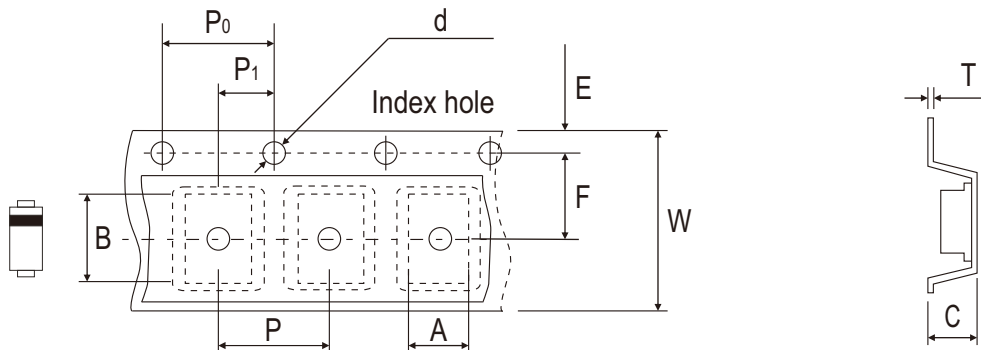
Fig.5 - Typical Junction Capacitance



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## Reel Taping Specification



DO-214AB (SMC)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	6.30 MAX.	8.60 MAX.	2.90 MAX.	1.50 ± 0.10	330 ± 2.00	50 MIN.	13.50 ± 1.00
	(inch)	0.248 MAX.	0.339 MAX.	0.114 MAX.	0.059 ± 0.004	12.992 ± 0.079	1.969 MIN.	0.531 ± 0.039

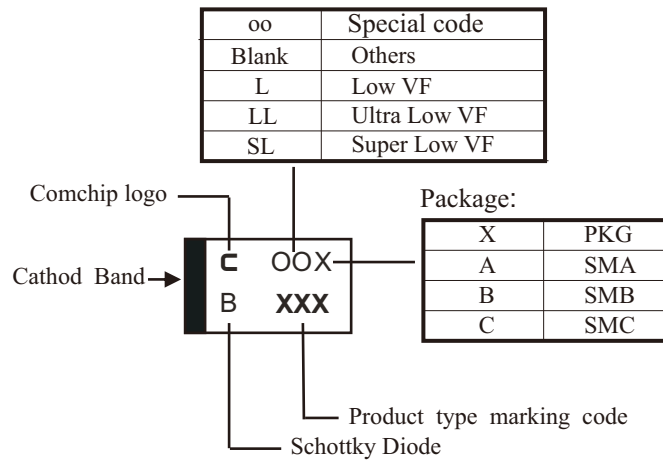
DO-214AB (SMC)	SYMBOL	E	F	P	P0	P1	T	W	W
	(mm)	1.75 ± 0.10	7.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.6 MAX.	16.00 ± 0.30	22.40 MAX.
	(inch)	0.069 ± 0.004	0.295 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.024 MAX.	0.630 ± 0.012	0.882 MAX.

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## Marking Code

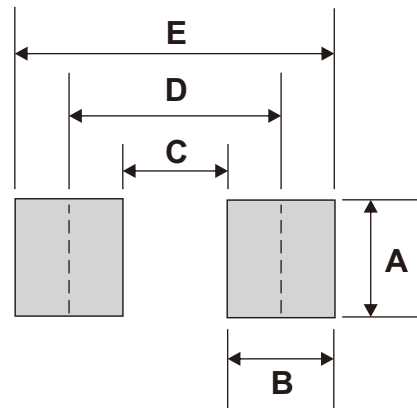
Part Number	Marking Code
ACDBC340-HF	340
ACDBC360-HF	360
ACDBC3100-HF	3100



**xxx/xxxx = Product type marking code**

## Suggested PAD Layout

SIZE	DO-214AB (SMC)	
	(mm)	(inch)
A	3.30	0.130
B	2.50	0.098
C	4.40	0.173
D	6.80	0.268
E	9.40	0.370



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

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DO-214AB (SMC)	3,000	13

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