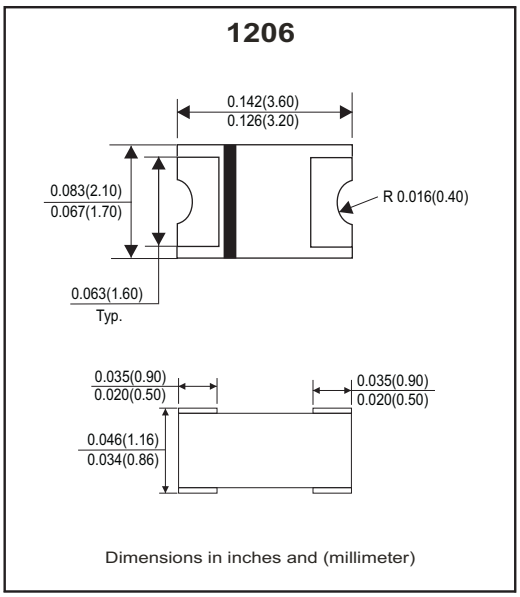
ACDBN120-HF Thru. ACDBN1100-HF

Forward current: 1.0A
Reverse voltage: 20 to 100V
RoHS Device
Halogen Free



Features

- Lead less chip form, no lead damage.
- Low power loss, High efficiency.
- High current capability, low VF.
- Plastic package has UL 94V-0.
- Comply with AEC-Q101

Mechanical Data

- Case: Packed with FRP substrate and epoxy underfilled.
- Terminals: Pure Tin plated (Lead-Free),solderable per MIL-STD-750, method 2026.
- Polarity: Laser cathode band marking.
- Weight: 0.012 grams (approx).

Circuit diagram

Maximum Ratings (At Ta=25°C, unless otherwise noted)

Parameter	Symbol	ACDBN120-HF	ACDBN140-HF	ACDBN160-HF	ACDBN1100-HF	Unit
Repetitive peak reverse voltage	V_{RRM}	20	40	60	100	V
Average forward current	$I_{F(AV)}$	1.0				A
Peak forward surge current @8.3ms single half sine-wave	I_{FSM}	20				A
Operating junction temperature range	T_J	-55 to +125		-55 to +150		°C
Storage temperature range	T_{STG}	-55 ~ +150				°C

Electrical Characteristics (At Ta=25°C, unless otherwise noted)

Parameter	Conditions	Type	Symbol	Min.	Typ.	Max.	Unit
Forward voltage (Note1)	I_F=0.1A I_F=0.5A I_F=1.0A	ACDBN120-HF / ACDBN140-HF	V_F	– – –	0.32 0.40 0.46	– – 0.50	V
	I_F=0.1A I_F=0.5A I_F=1.0A	ACDBN160-HF		– – –	0.35 0.48 0.62	– – 0.70	
	I_F=0.1A I_F=0.5A I_F=1.0A	ACDBN1100-HF		– – –	0.45 0.66 0.76	– – 0.85	
Reverse peak reverse current (Note1)	V_R=Max.V_{RRM}, Ta=25°C		I_{RRM}	–	0.015	0.2	mA
Junction capacitance	V_R=4V, f=1.0MHz		Cj	–	110	–	pF
Thermal resistance	Junction to ambient (Note 2)		$R_{\Theta JA}$	–	88	–	°C/W
	Junction to lead (Note 2)		$R_{\Theta JL}$	–	28	–	°C/W

Notes: (1) Pulse test width pw=300usec, 1% duty cycle.
(2) Mounted on P.C. board with 0.2*0.2"(5.0*5.0mm) copper pad areas.

RATING AND CHARACTERISTIC CURVES (ACDBN120-HF Thru. ACDBN1100-HF)

Fig.1 - Forward Current Derating Curve

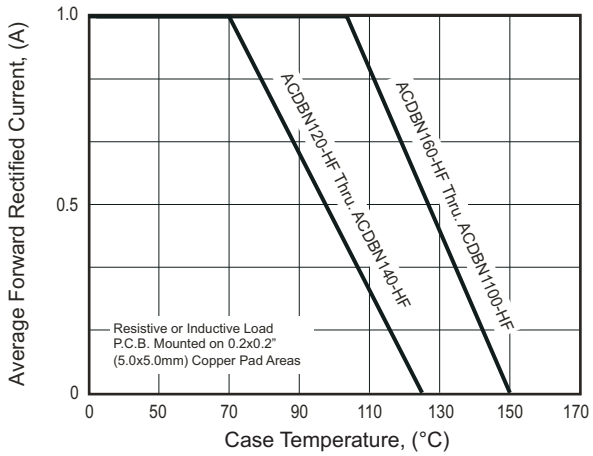


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

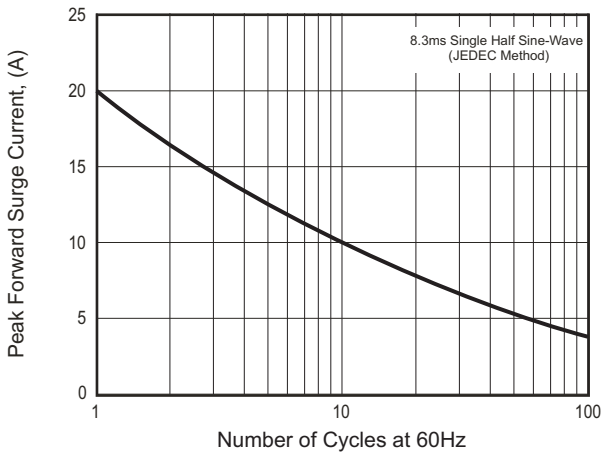


Fig.3 - Typical Instantaneous Forward Characteristics

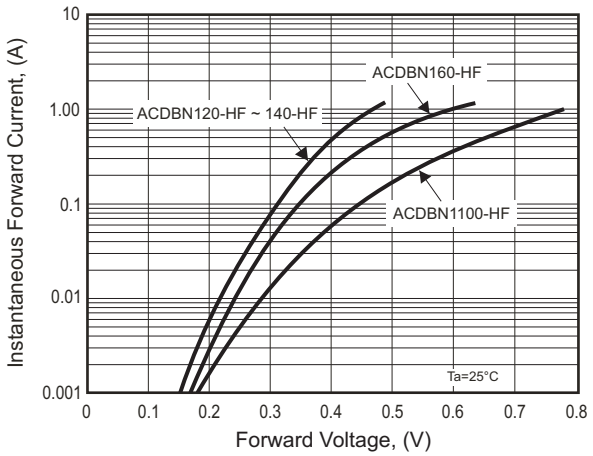


Fig.4- Typical Reverse Characteristics

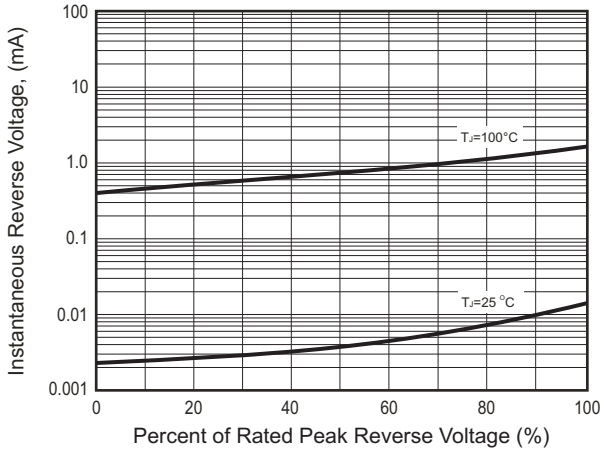
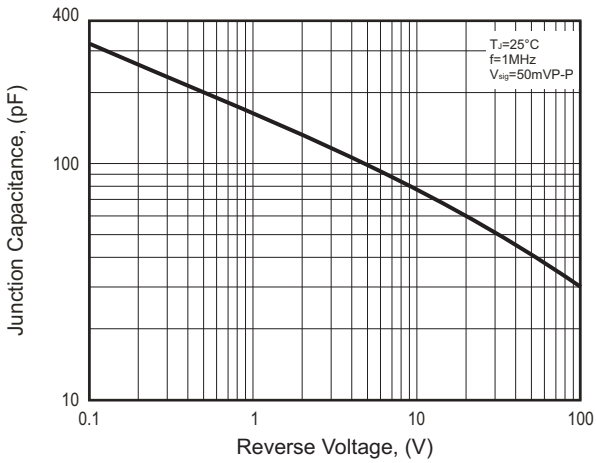
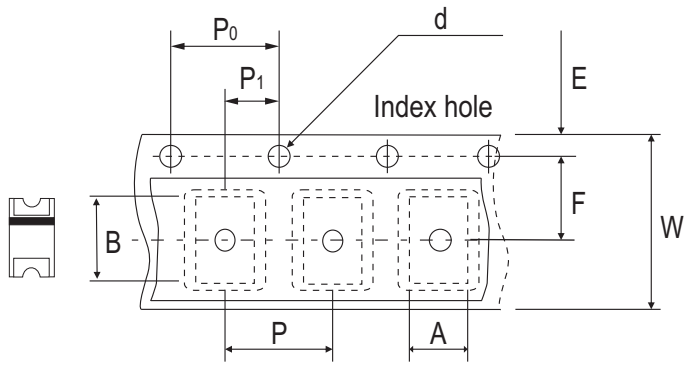
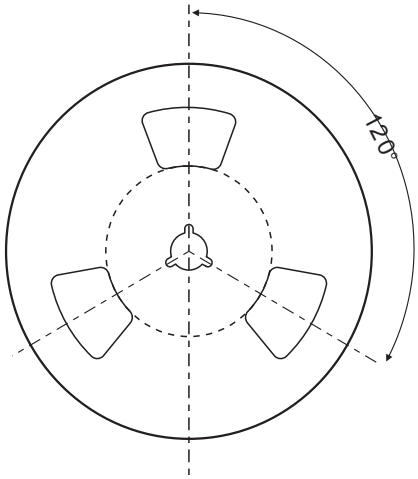


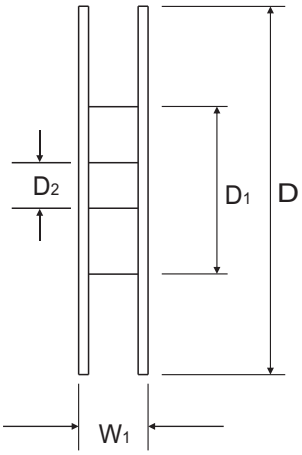
Fig.5 - Typical Junction Capacitance

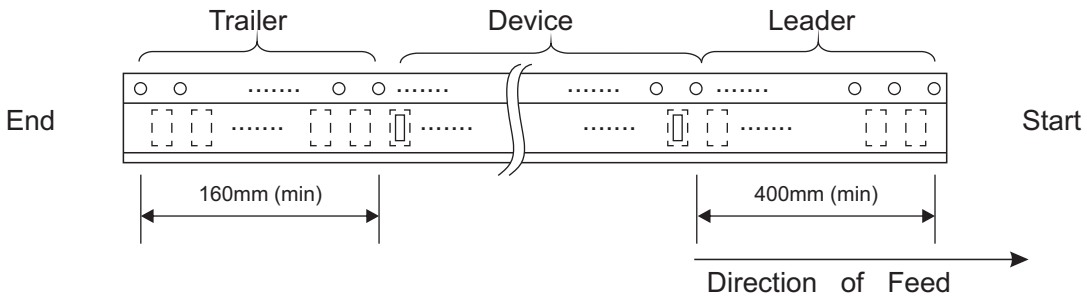


Reel Taping Specification







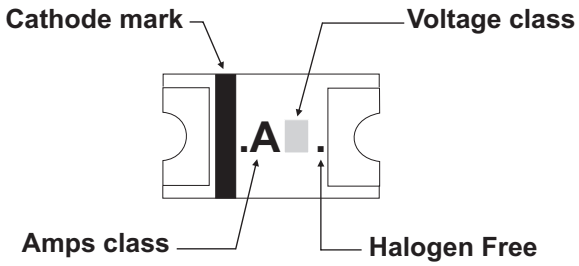


	SYMBOL	A	B	C	d	D	D_1	D_2
1206	(mm)	2.20 ± 0.10	3.65 ± 0.10	1.28 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	50.00 MIN.	13.00 ± 0.50
	(inch)	0.087 ± 0.004	0.144 ± 0.004	0.050 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	1.969 MIN.	0.512 ± 0.020

	SYMBOL	E	F	P	P_0	P_1	W	W_1
1206	(mm)	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	12.00 ± 0.30	18.70 MAX.
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.472 ± 0.012	0.736 MAX.

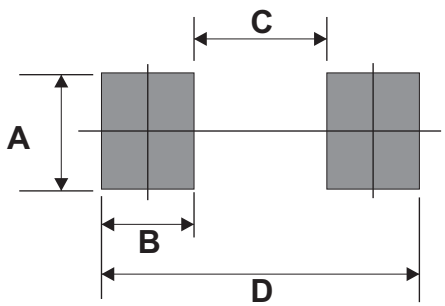
Marking Code

Part Number	Marking Code
ACDBN120-HF	.A2.
ACDBN140-HF	.A4.
ACDBN160-HF	.A6.
ACDBN1100-HF	.A10.



Suggested PAD Layout

SIZE	1206	
	(mm)	(inch)
A	1.50 MIN.	0.059MIN.
B	1.00	0.039
C	2.00MAX.	0.078MAX.
D	4.00REF.	0.157 REF.



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
1206	3,000	7