



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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ACEFN103-HF

Forward current: 1.0A

Reverse voltage: 600V

RoHS Device
Halogen Free

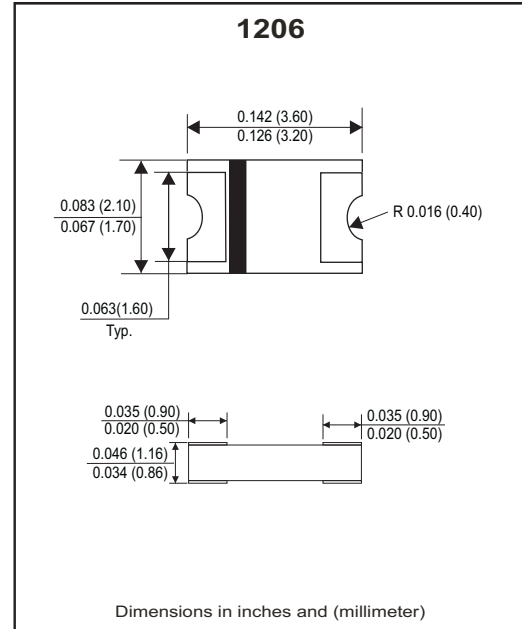


Features

- GPRC(Glass passivated rectifier chip) inside.
- Glass passivated cavity-free junction.
- Low power loss, High efficiency.
- High current capability
- 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



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

Parameter	Conditions	Symbol	ACEFN103-HF	Units
		Marking	167 Z.	
Repetitive peak reverse voltage		V_{RRM}	600	V
Average forward current	$T_L=110^{\circ}C$	$I_{F(AV)}$	1.0	A
Peak forward surge current	8.3ms single half sine-wave	I_{FSM}	25	A
Reverse recovery time	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	T_{rr}	35	nS
Operating junction temperature		T_J	-65 to +175	$^{\circ}C$
Storage temperature		T_{STG}	-65 to +175	$^{\circ}C$

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

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Forward voltage	$I_F=0.1A$	V_F	-	0.80	-	V
	$I_F=0.5A$		-	1.15	-	
	$I_F=1.0A$		-	1.40	1.70	
Repetitive peak reverse current	$V_R = \text{Max. } V_{RRM}, T_A=25^{\circ}C$	I_{RRM}	-	0.20	5	μA
Junction capacitance	$V_R=4V, f=1.0MHz$	C_J	-	10	-	pF
Thermal Resistance	Junction to ambient (Note)	$R_{\theta JA}$	-	80	-	$^{\circ}C/W$
	Junction to lead (Note)	$R_{\theta JL}$	-	40	-	

Notes: 1. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2x0.2"(5.0*5.0mm) copper pad areas.

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

REV:B

RATING AND CHARACTERISTIC CURVES (ACEFN103-HF)

Fig.1- Forward current derating curve

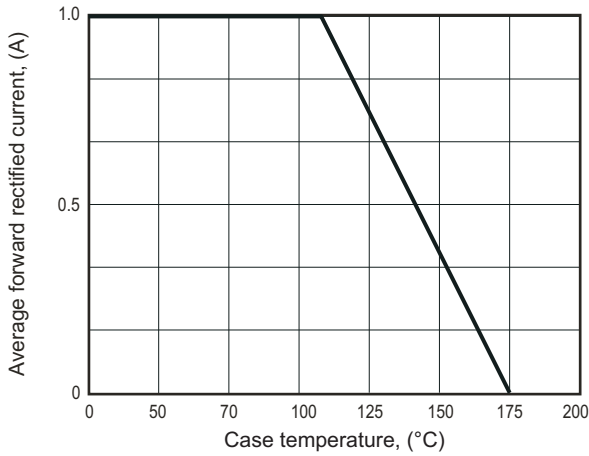


Fig.2- Maximum non-repetitive peak forward surge current

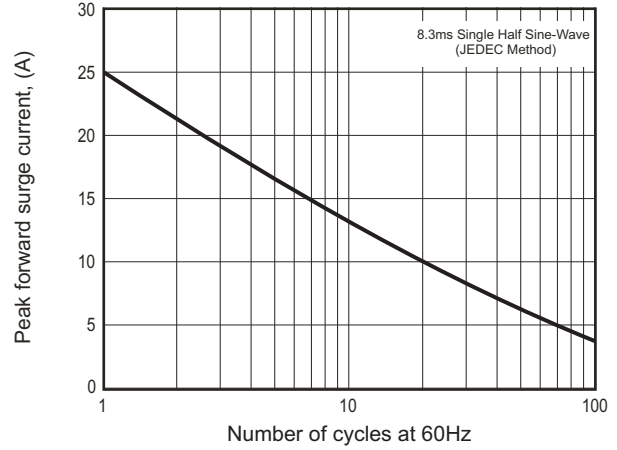


Fig.3- Typical instantaneous forward characteristics

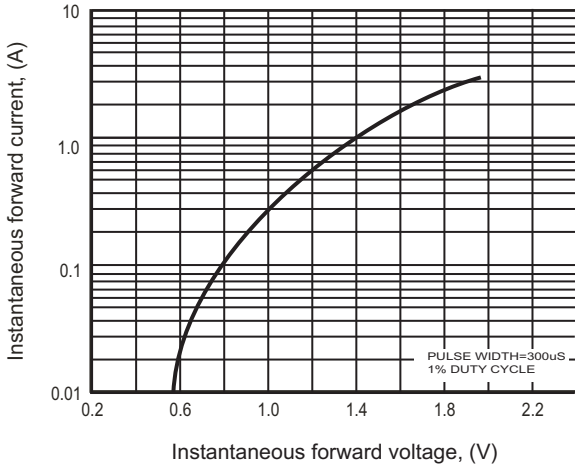


Fig.4- Typical Reverse Characteristics

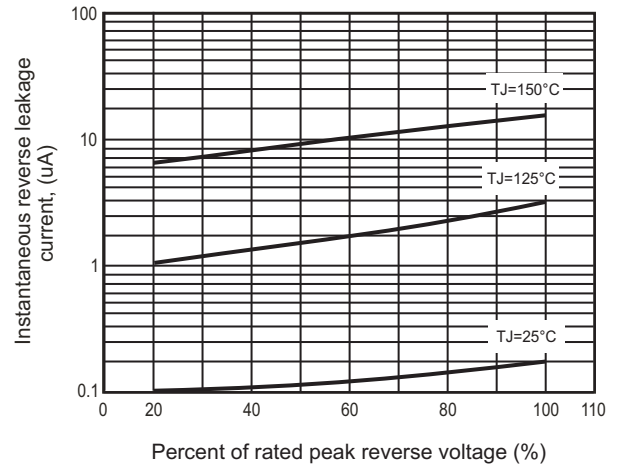
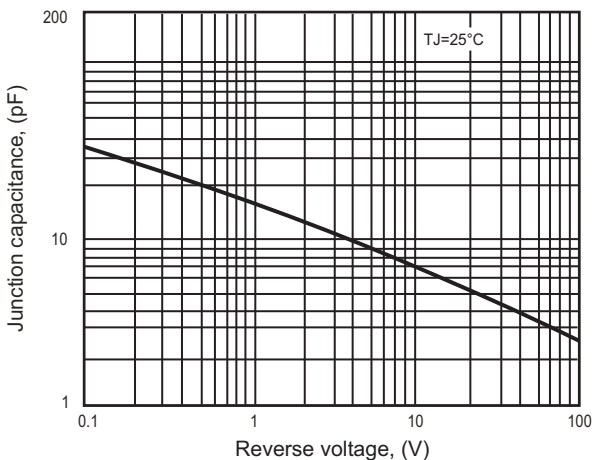
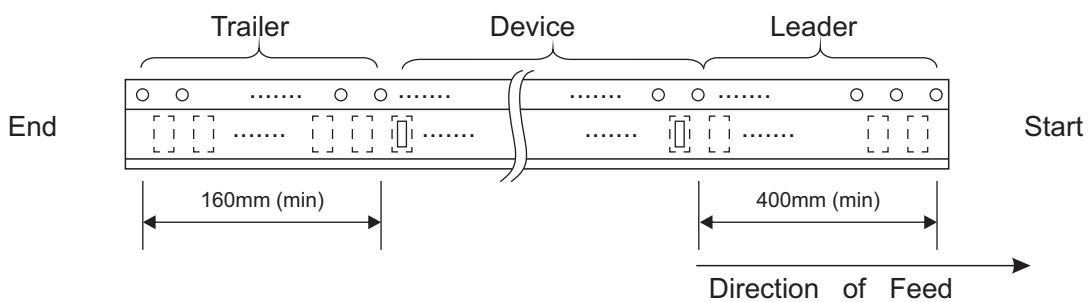
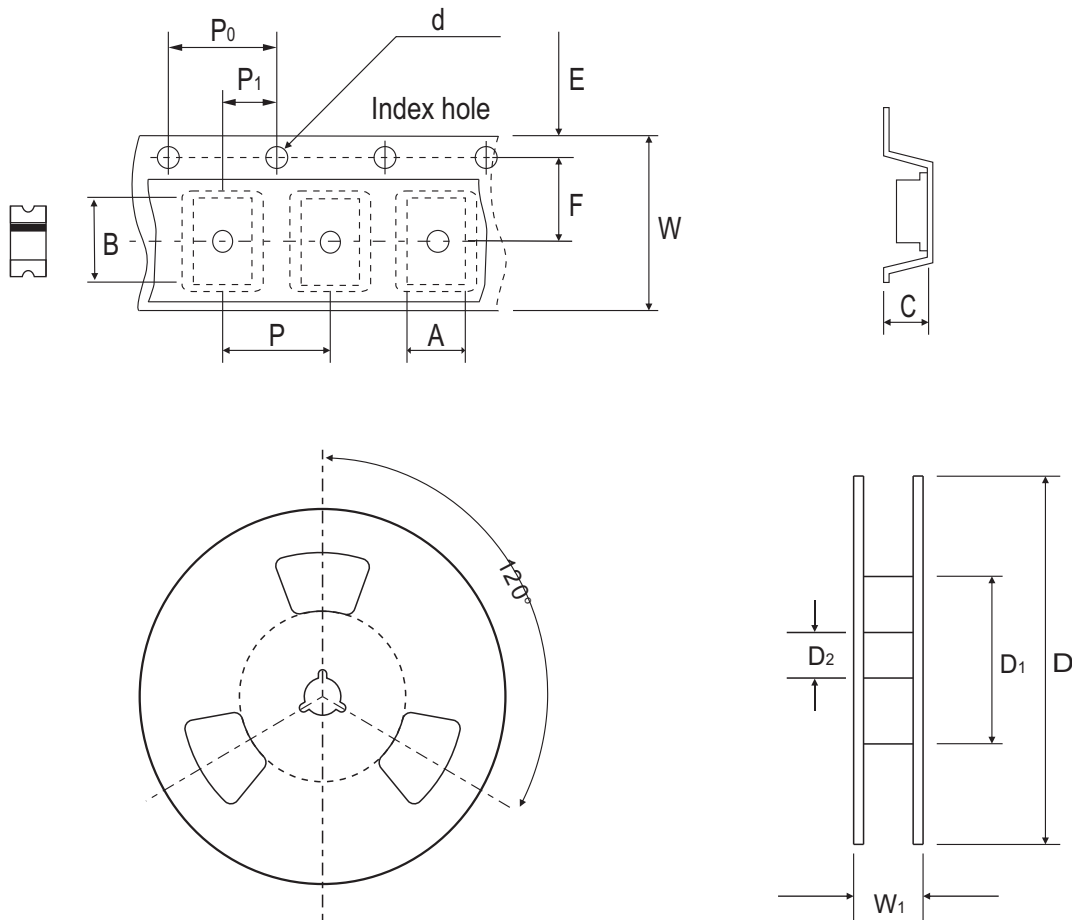


Fig.5 - Typical junction capacitance



Reel Taping Specification

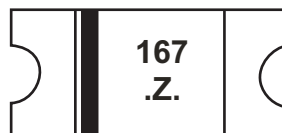


1206	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.20 ± 0.10	3.65 ± 0.10	1.28 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	50.00 MIN.	13.00 ± 0.50
	(inch)	0.087 ± 0.004	0.144 ± 0.004	0.050 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	1.969 MIN.	0.512 ± 0.020

1206	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 ± 0.10	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.

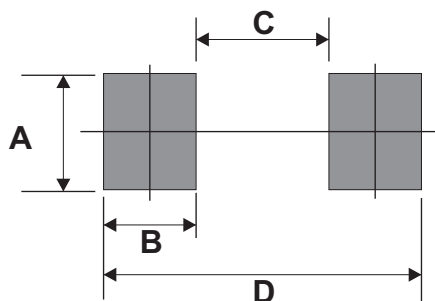
Marking Code

Part Number	Marking Code
ACEFN103-HF	167 .Z.



Suggested PAD Layout

SIZE	1206	
	(mm)	(inch)
A	1.50MIN.	0.059MIN.
B	1.00MIN.	0.039MIN.
C	2.00MAX.	0.079MAX.
D	4.00REF.	0.157 REF.



Standard Packaging

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