

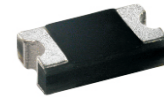
CURN101-HF Thru CURN105-HF

Forward current: 1.0A

Reverse voltage: 200 to 1000V

RoHS Device

Halogen Free

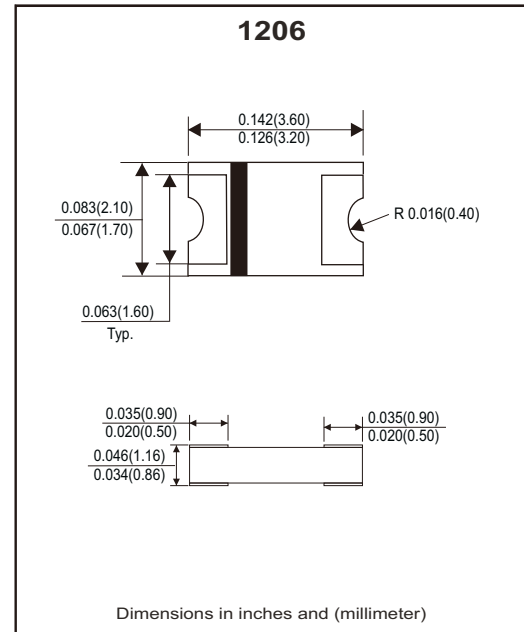


Features

- 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.

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	CURN 101-HF	CURN 102-HF	CURN 103-HF	CURN 105-HF	Units
Repetitive peak reverse voltage		V _{RRM}	200	400	600	1000	V
Average forward current		I _{F(AV)}	1.0				A
Peak forward surge current	8.3ms single half sine-wave	I _{FSM}	30			25	A
Reverse recovery time	I _F =0.5A,I _R =1.0A,I _{rr} =0.25A	T _{rr}	50			75	nS
Operating junction temperature		T _J	-65 to +175				°C
Storage temperature		T _{STG}	-65 to +175				°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	-	0.98	-	V
	$I_F=0.5A$		-	1.28	-	
	$I_F=1.0A$		-	1.45	1.70	
Repetitive peak reverse current	$V_R = \text{Max. } V_{RRM}, T_A=25^\circ\text{C}$	I_{RRM}	-	0.08	5	μA
Junction capacitance	$V_R=4V, f=1.0\text{MHz}$	C_J	-	10	-	pF
Thermal Resistance	Junction to ambient (Note)	$R_{\theta JA}$	-	90	-	°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 0.2×0.2"(5.0×5.0mm) copper pad areas.

RATING AND CHARACTERISTIC CURVES (CURN101-HF Thru. CURN105-HF)

Fig.1- Forward Current Derating Curve

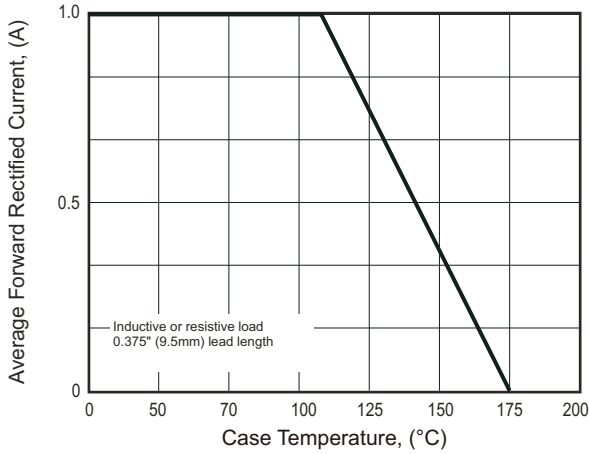


Fig.2- Maximum Non-Repetitive Peak Forward Surge Current

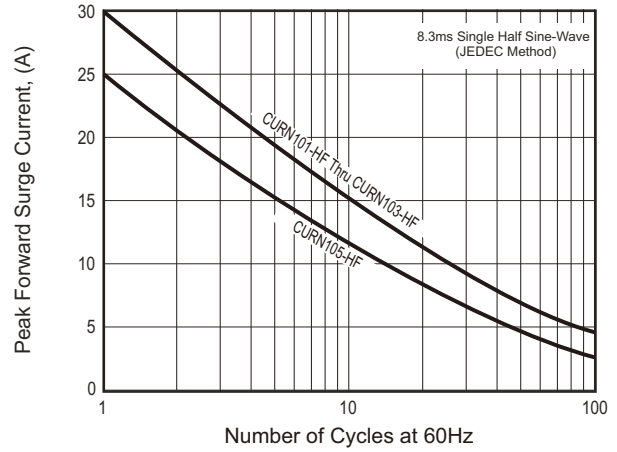


Fig.3- Typical Instantaneous Forward Characteristics

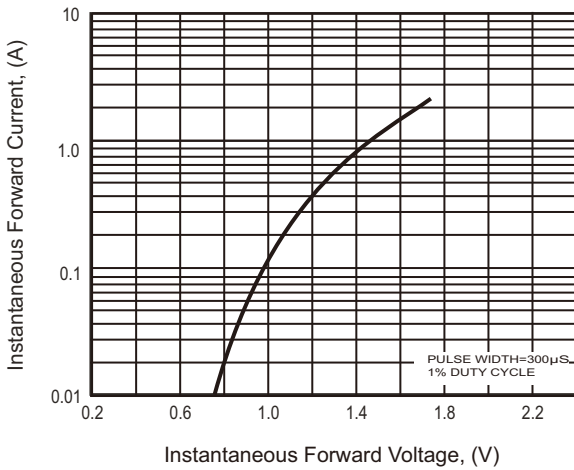


Fig.4- Typical Reverse Characteristics

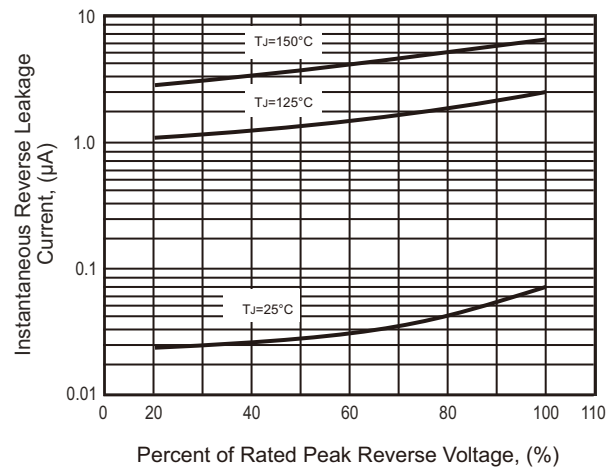
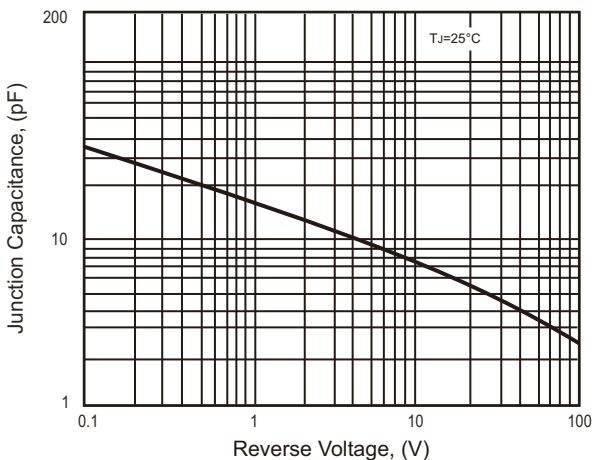
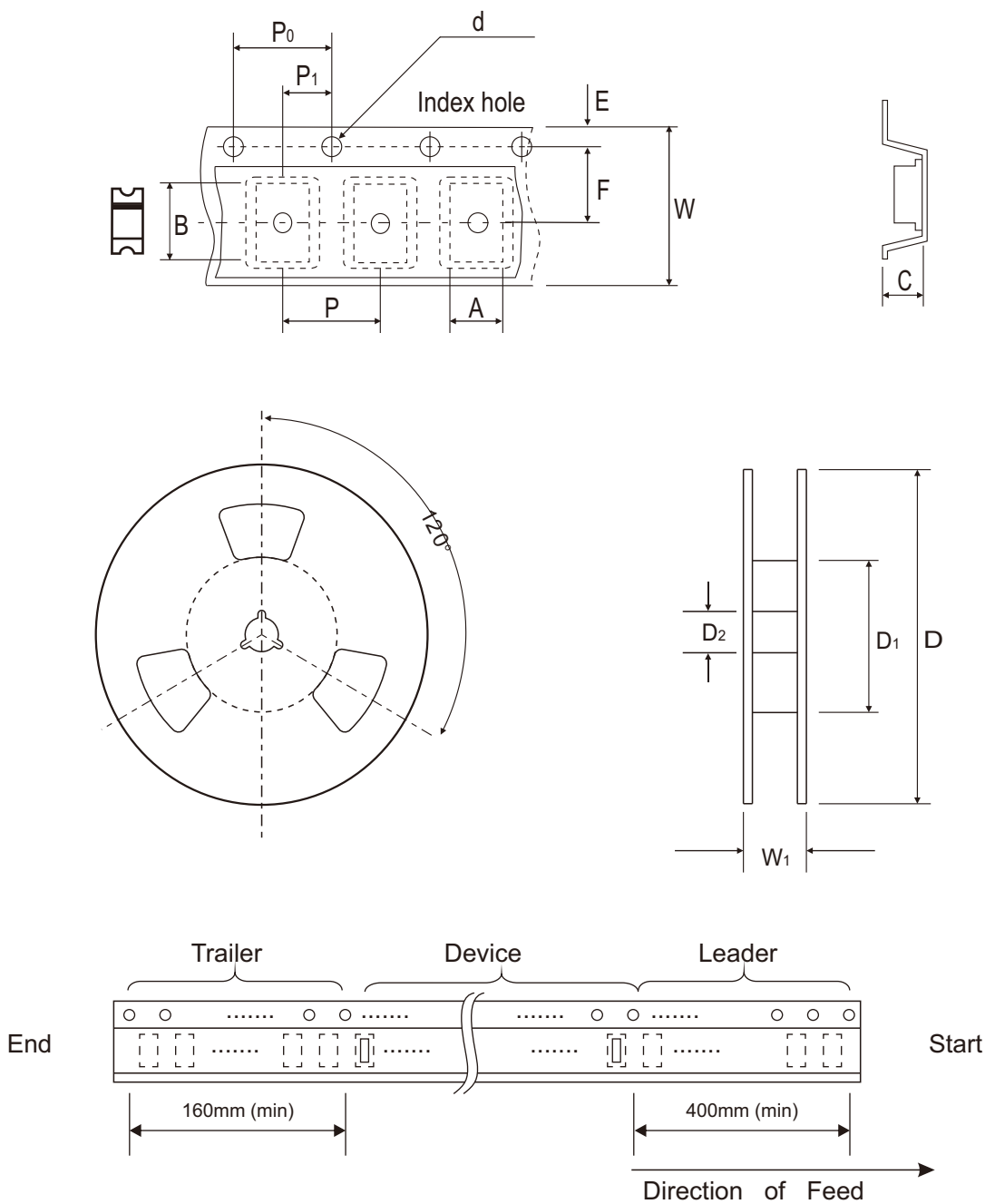


Fig.5 - Typical Junction Capacitance



Reel Taping Specification

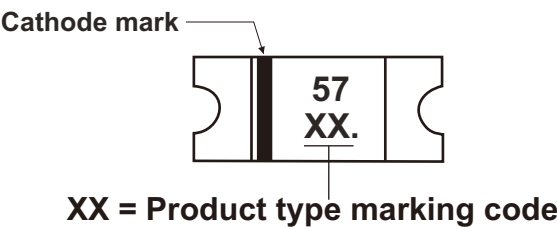


1206	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.20 ± 0.10	3.65 ± 0.10	1.28 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	50.00 MIN.	13.00 ± 0.50
	(inch)	0.087 ± 0.004	0.144 ± 0.004	0.050 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	1.969 MIN.	0.512 ± 0.020

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.

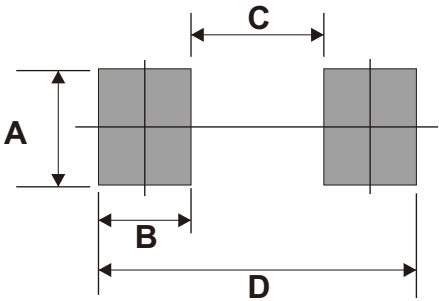
Marking Code

Part Number	Marking Code
CURN101-HF	ZD
CURN102-HF	ZG
CURN103-HF	ZJ
CURN105-HF	ZM



Suggested P.C.B. PAD Layout

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



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

Standard Packaging

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