

CURNM101-HF Thru. CURNM105-HF

Forward current: 1.0A

Reverse voltage: 200 to 1000V

RoHS Device

Halogen Free

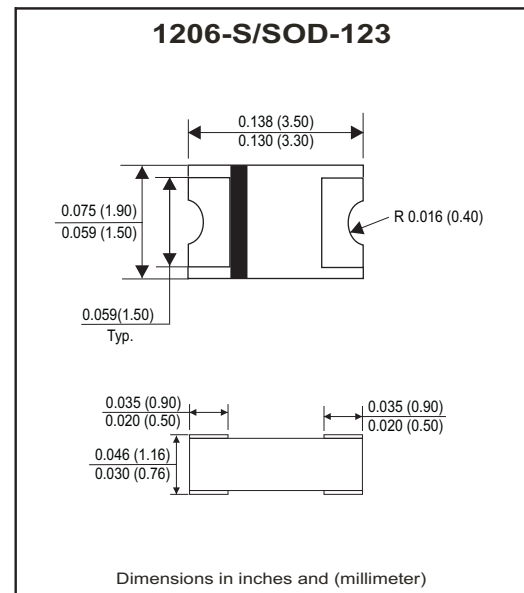


Features

- GPRC(Glass passivated rectifier chip) inside.
- Glass passivated cavity-free junction.
- Low power loss, High efficiency.
- High current capability
- Plastic package has underwriters laboratory flammability classification 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: Cathode band laser marking.
- Weight: 0.012 gram (approx).



Circuit diagram



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

Parameter	Symbol	Conditions	CURNM 101-HF	CURNM 102-HF	CURNM 103-HF	CURNM 104-HF	CURNM 105-HF	Unit
Repetitive peak reverse voltage	V _{RRM}		200	400	600	800	1000	V
Average forward current	I _O		1.0					A
Peak forward surge current	I _{FSM}	8.3ms single half sine-wave	15					A
Reverse recovery time	T _{rr}	IF=0.5A,IR=1.0A,Irr=0.25A	50		75			nS
Operating junction temperature range	T _J		-65 to +175					°C
Storage temperature range	T _{STG}		-65 to +175					°C

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

Parameter	Symbol	Conditions	Type	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	$I_F = 1.0A$	CURNM101-HF	-	0.95	1.00	V
			CURNM102-HF	-	1.10	1.25	
			CURNM103-HF	-	1.50	1.70	
			CURNM104-HF	-	1.50	1.70	
			CURNM105-HF	-	1.50	1.70	
Repetitive peak reverse current	I_{RRM}	$V_R = \text{Max. } V_{RRM}, T_A = 25^\circ\text{C}$		-	0.10	5	uA
Junction capacitance	C_J	$V_R = 4V, f = 1.0\text{MHz}$		-	9	-	pF
Thermal Resistance	$R_{\theta JA}$	Junction to ambient (Note)		-	123	-	°C/W
	$R_{\theta JL}$	Junction to lead (Note)		-	45	-	

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.

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

REV:A

RATING AND CHARACTERISTIC CURVES (CURNM101-HF Thru. CURNM105-HF)

Fig.1- Typical Forward Current Derating Curve

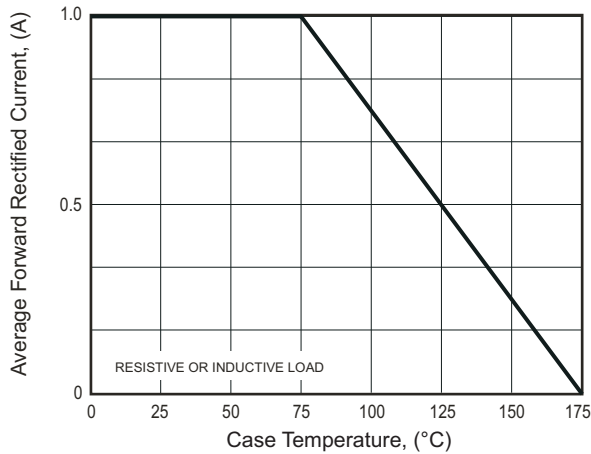


Fig.2- Maximum Non-Repetitive Peak Forward Surge Current

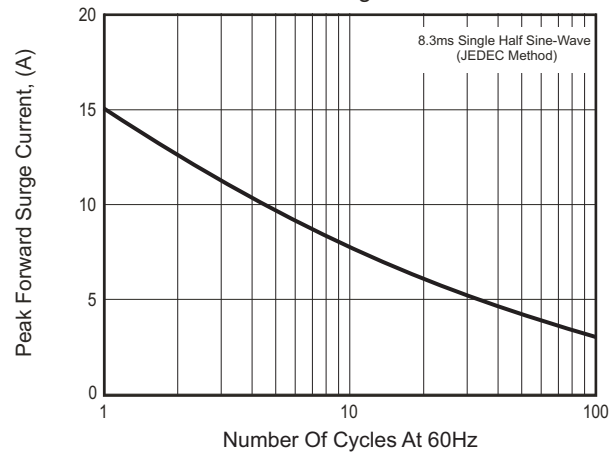


Fig.3- Typical Instantaneous Forward Characteristics

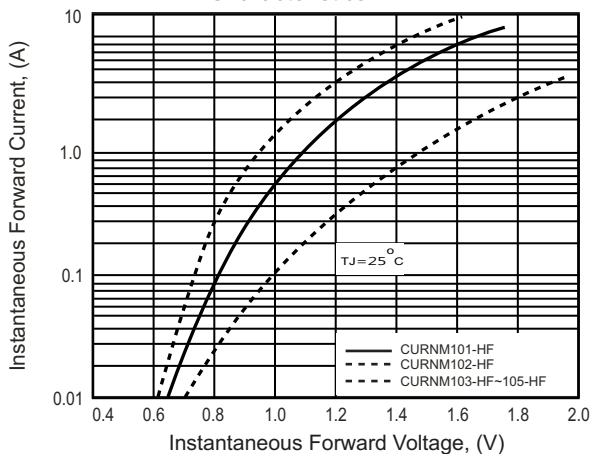


Fig.4- Typical Reverse Characteristics Per Bridge Element

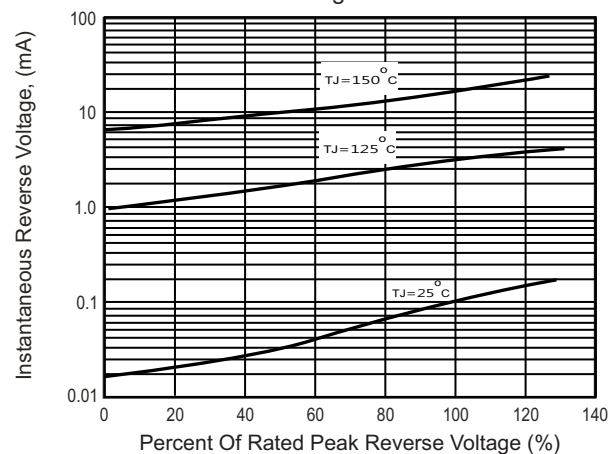
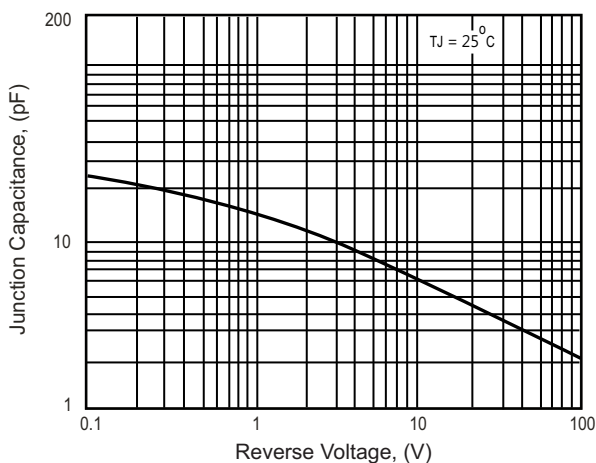
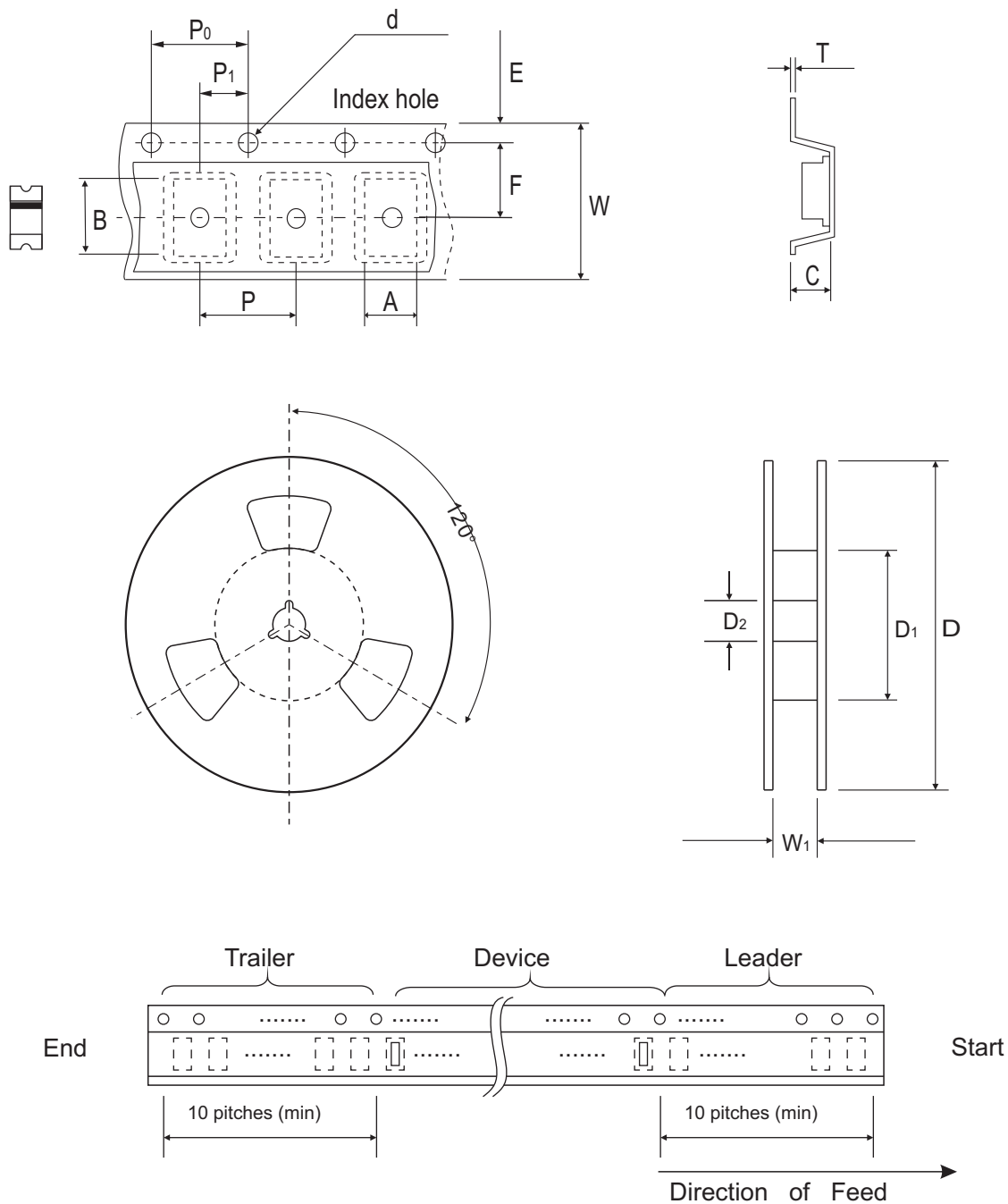


Fig.5- Typical Junction Capacitance



Reel Taping Specification



1206-S (SOD-123)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.85 ± 0.10	3.65 ± 0.10	1.31 ± 0.10	1.50 ± 0.10	330 ± 2.00	50.0 MIN.	13.0 ± 0.50
	(inch)	0.073 ± 0.004	0.144 ± 0.004	0.052 ± 0.004	0.059 ± 0.004	12.992 ± 0.079	1.969 MIN.	0.512 ± 0.020

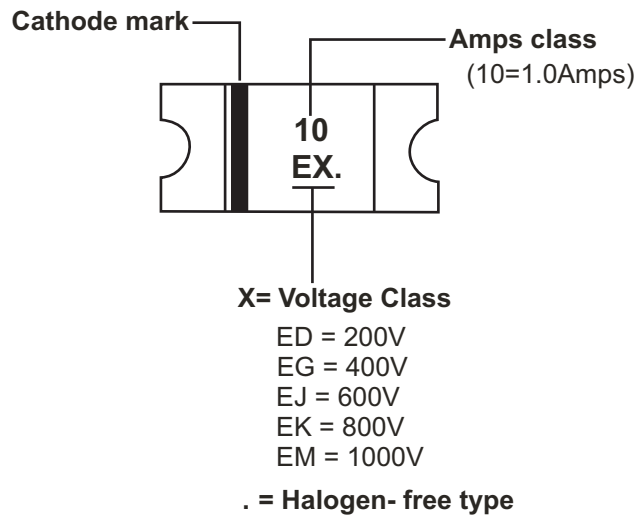
1206-S (SOD-123)	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	12.00 ± 0.30	14.4 MAX.
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.472 ± 0.012	0.567 MAX.

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REV:A

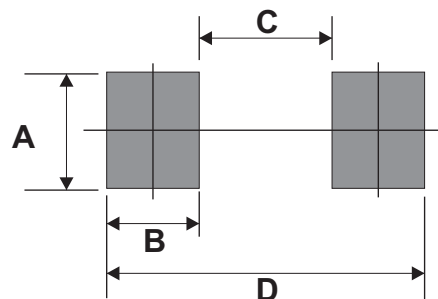
Marking Code

Part Number	Marking Code
CURNM101-HF	10 ED.
CURNM102-HF	10 EG.
CURNM103-HF	10 EJ.
CURNM104-HF	10 EK.
CURNM105-HF	10 EM.



Suggested PAD Layout

SIZE	1206-S/SOD-123	
	(mm)	(inch)
A	1.50 MIN.	0.059MIN.
B	1.00 MIN.	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-S (SOD-123)	3,000	7