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SMD Ultra Fast Recovery Rectifiers

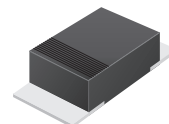


CURM101-G Thru. CURM107-G

Reverse Voltage: 50 - 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

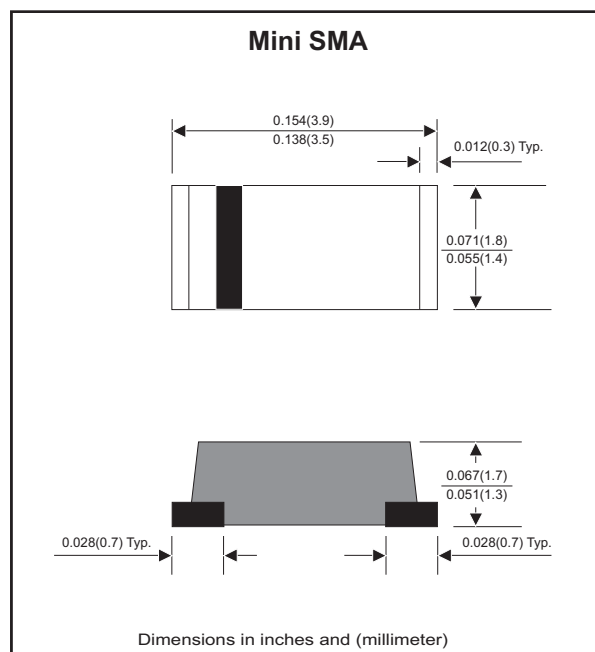


Features

- Ideal for surface mount applications
- Easy pick and place
- Plastic package has Underwriters Lab. flammability classification 94V-0
- Exceeds environmental standard MIL-S-19500/228
- Low leakage current

Mechanical data

- Case: Mini SMA/SOD-123 molded plastic
- Terminals: solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Mounting position: Any
- Approx. Weight: 0.04 grams



Maximum Ratings and Electrical Characteristics

Parameter		Symbol	CURM 101-G	CURM 102-G	CURM 103-G	CURM 104-G	CURM 105-G	CURM 106-G	CURM 107-G	Unit
Repetitive Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	V
Continuous reverse voltage		V _R	50	100	200	400	600	800	1000	V
RMS Voltage		V _{RMS}	35	70	140	280	420	560	700	V
Max. Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)		I _{FSM}	30							A
Max. Forward rectified Current		I _o	1.0							A
Max. Forward voltage at I _F =1.0A		V _F	1.0			1.3	1.7			V
Max. Reverse recovery time (Note 1)		T _{rr}	50				75			nS
Max. Reverse Current	V _R =V _{RRM} , T _J =25°C	I _R	5.0							μA
	V _R =V _{RRM} , T _J =100°C	I _R	150							
TYP. Thermal Resistance (Note 1)		R _{θJA}	42							°C/W
TYP. Diode Junction Capacitance (F=1MHz and applied 4V DC reverse voltage)		C _J	20							pF
Operating Junction Temperature		T _J	-55 to +150							°C
Storage Temperature		T _{STG}	-65 to +175							°C

Note 1: Reverse recovery time test Condition, I_F=0.5A , I_R=1.0A , I_{RR}=0.25A

REV:B

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Rating and Characteristic Curves (CURM101-G Thru CURM107-G)

Fig. 1 - Typical Forward Characteristics

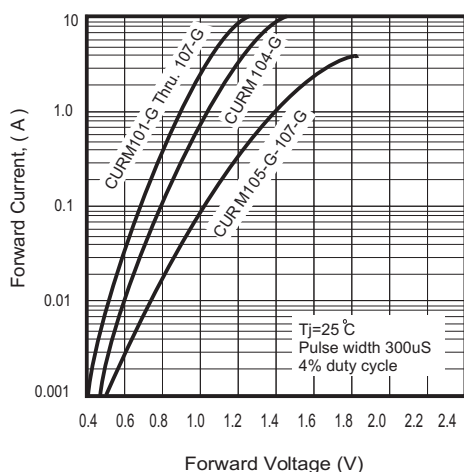


Fig. 2 - Typical Forward Current Derating Curve

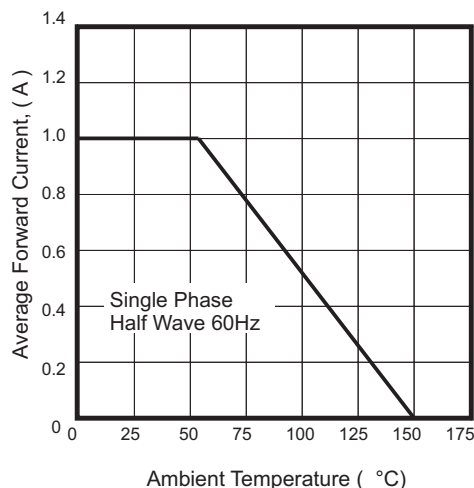
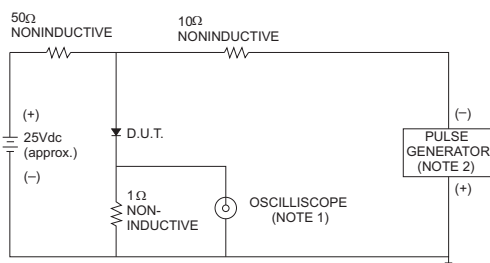


Fig. 3 - Test Circuit Diagram and Reverse Recovery Time Characteristics



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

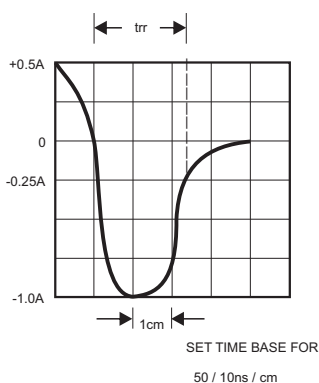


Fig. 4 - Maximum Non-Repetitive Forward Surge Current

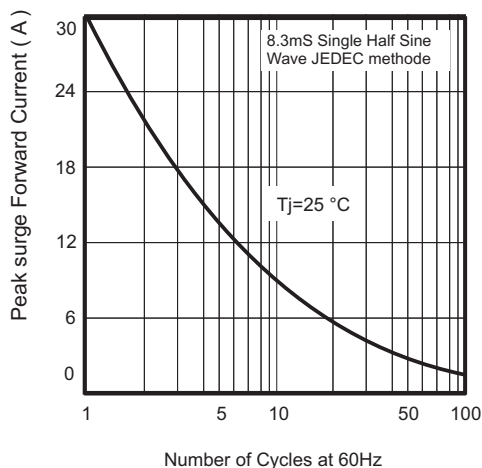
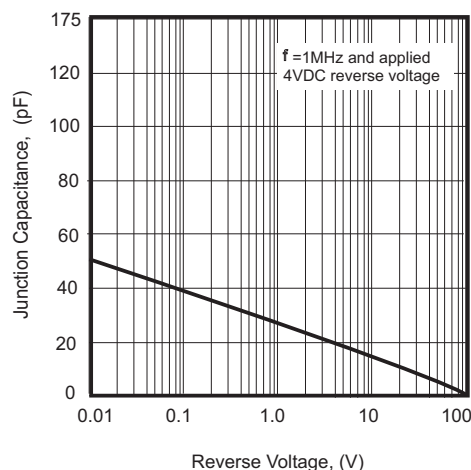
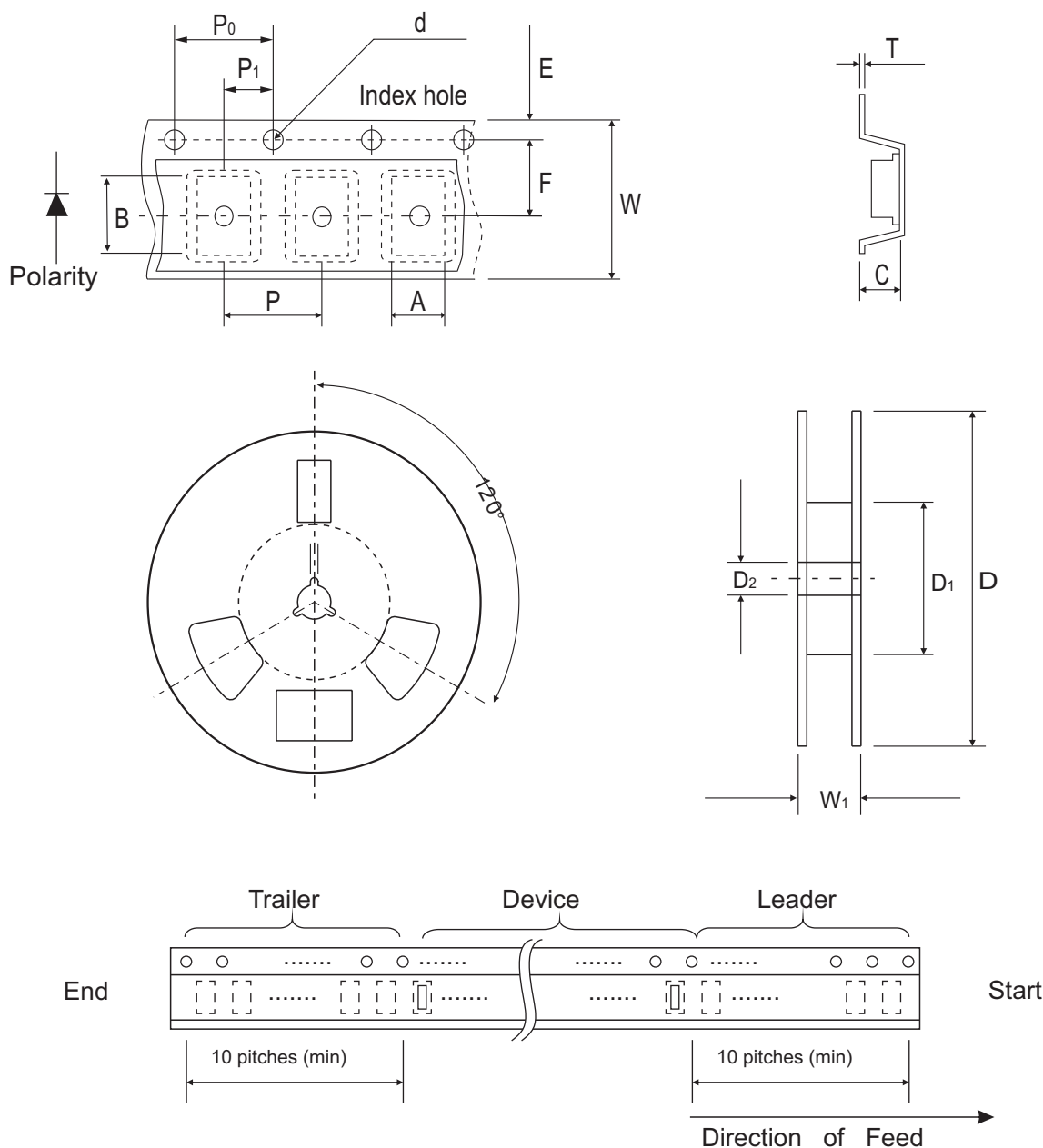


Fig.5 - Typical Junction Capacitance



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Reel Taping Specification



Mini-SMA/SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.90 ± 0.10	3.90 ± 0.10	1.68 ± 0.10	1.50 ± 0.10	178 ± 2.00	62.0 MIN.	13.0 ± 0.50
	(inch)	0.075 ± 0.04	0.154 ± 0.04	0.066 ± 0.04	0.059 ± 0.004	7.00 ± 0.079	2.440 MIN.	0.512 ± 0.020

Mini-SMA/SOD-123	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.10	8.00 ± 0.30	11.40 ± 1.0
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.004	0.315 ± 0.012	0.449 ± 0.004

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Marking Code

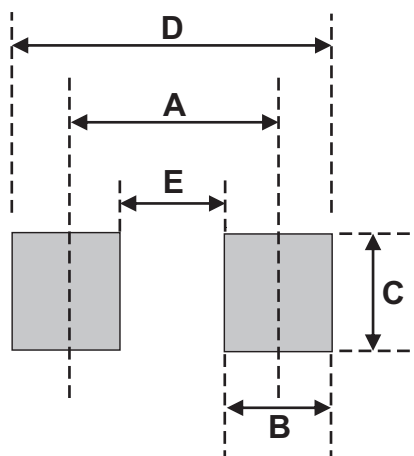
Part Number	Marking Code
CURM101-G	H1
CURM102-G	H2
CURM103-G	H3
CURM104-G	H4
CURM105-G	H5
CURM106-G	H6
CURM107-G	H7



XX = Product type marking code

Suggested PAD Layout

SIZE	Mini-SMA/SOD-123	
	(mm)	(inch)
A	3.30	0.130
B	1.40	0.055
C	1.90	0.075
D	4.70	0.185
E	1.90	0.075



Standard Packaging

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
Mini-SMA/SOD-123	2,500	7