

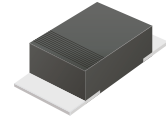
CFRM101-HF Thru. CFRM107-HF

Voltage: 50 to 1000 Volts

Current: 1.0 A

RoHS Device

Halogen Free

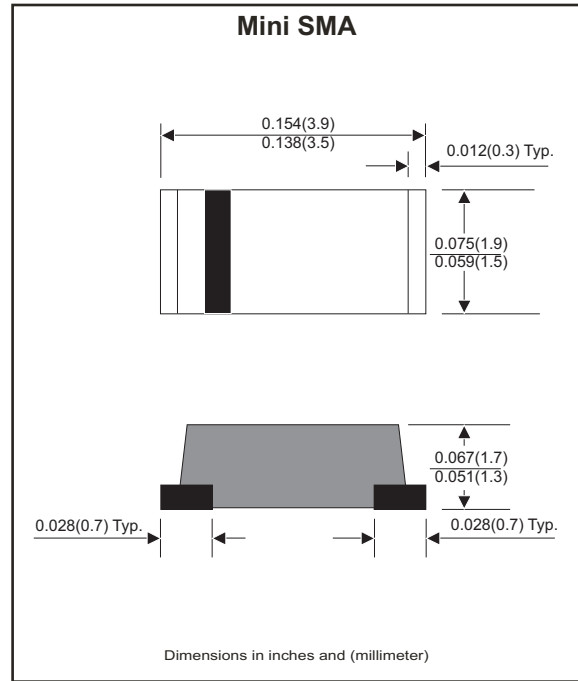


Features

- Batch process design,excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low Profile surface mounted application in order to optimize board space.
- Tiny plastic SMD package.
- High current capability.
- Fast switching for high efficiency.
- High surge current capability.
- Glass passivated chip junction.

Mechanical data

- Case: Molded plastic, SOD-123/Mini SMA.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.018 grams approx.



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

Parameter	Symbol	CFRM 101-HF	CFRM 102-HF	CFRM 103-HF	CFRM 104-HF	CFRM 105-HF	CFRM 106-HF	CFRM 107-HF	Unit
Repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Continuous reverse voltage	V_R	50	100	200	400	600	800	1000	V
Maximum Forward rectified current	I_o	1.0							A
Maximum forward voltage @ $I_F=1.0A$	V_F	1.3							V
Maximum Forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Reverse current	$V_R=V_{RRM}$ @ $T_A=25^\circ C$	5.0							μA
	$V_R=V_{RRM}$ @ $T_A=100^\circ C$	100							
Maximum Reverse recovery time (note 1)	t_{rr}	150		250		500		nS	
Typical Thermal resistance (Junction to ambient)	$R_{\theta JA}$	42							$^\circ C/W$
Typical Diode junction capacitance $f=1MHz$ and applied 4V DC reverse voltage	C_J	15							pF
Operating junction temperature	T_J	-55 to +150							$^\circ C$
Storage temperature range	T_{STG}	-65 to +175							$^\circ C$

Note 1. Reverse recovery time test condition , $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$

Rating and Characteristic Curves (CFRM101-HF Thru. CFRM107-HF)

Fig.1 Typical Forward Characteristics

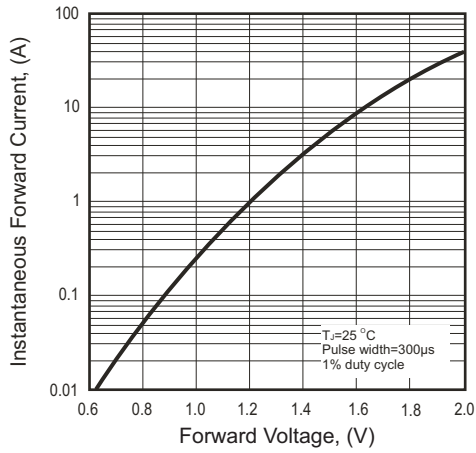


Fig.2- Typical Forward Current Derating Curve

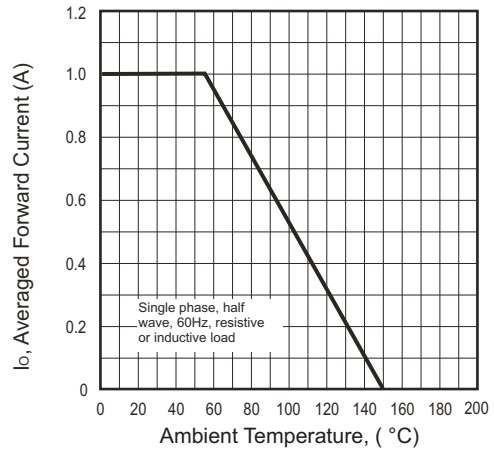


Fig.3- Maximum Non-repetitive Forward Surge Current

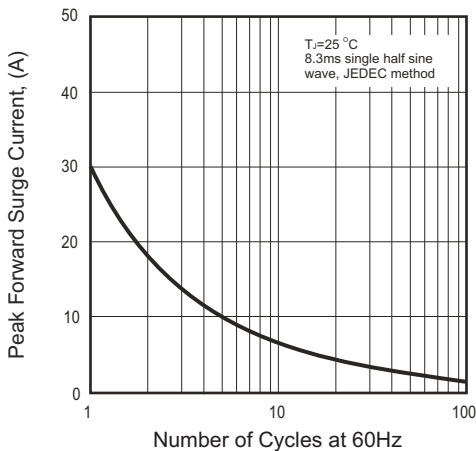


Fig.4- Typical Junction Capacitance

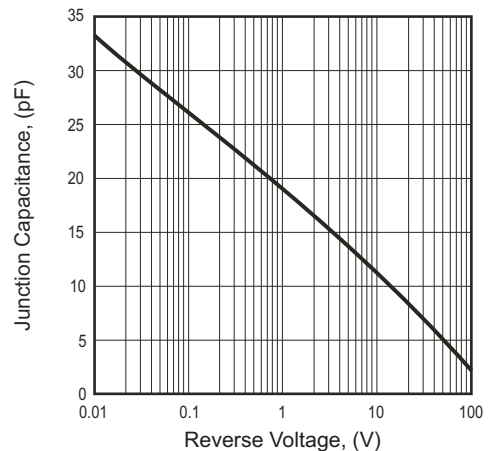
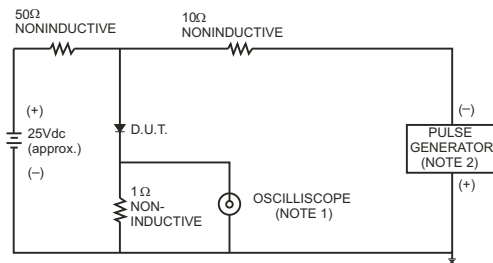
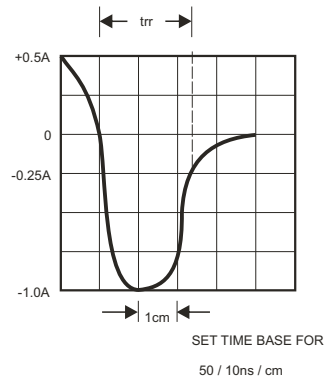


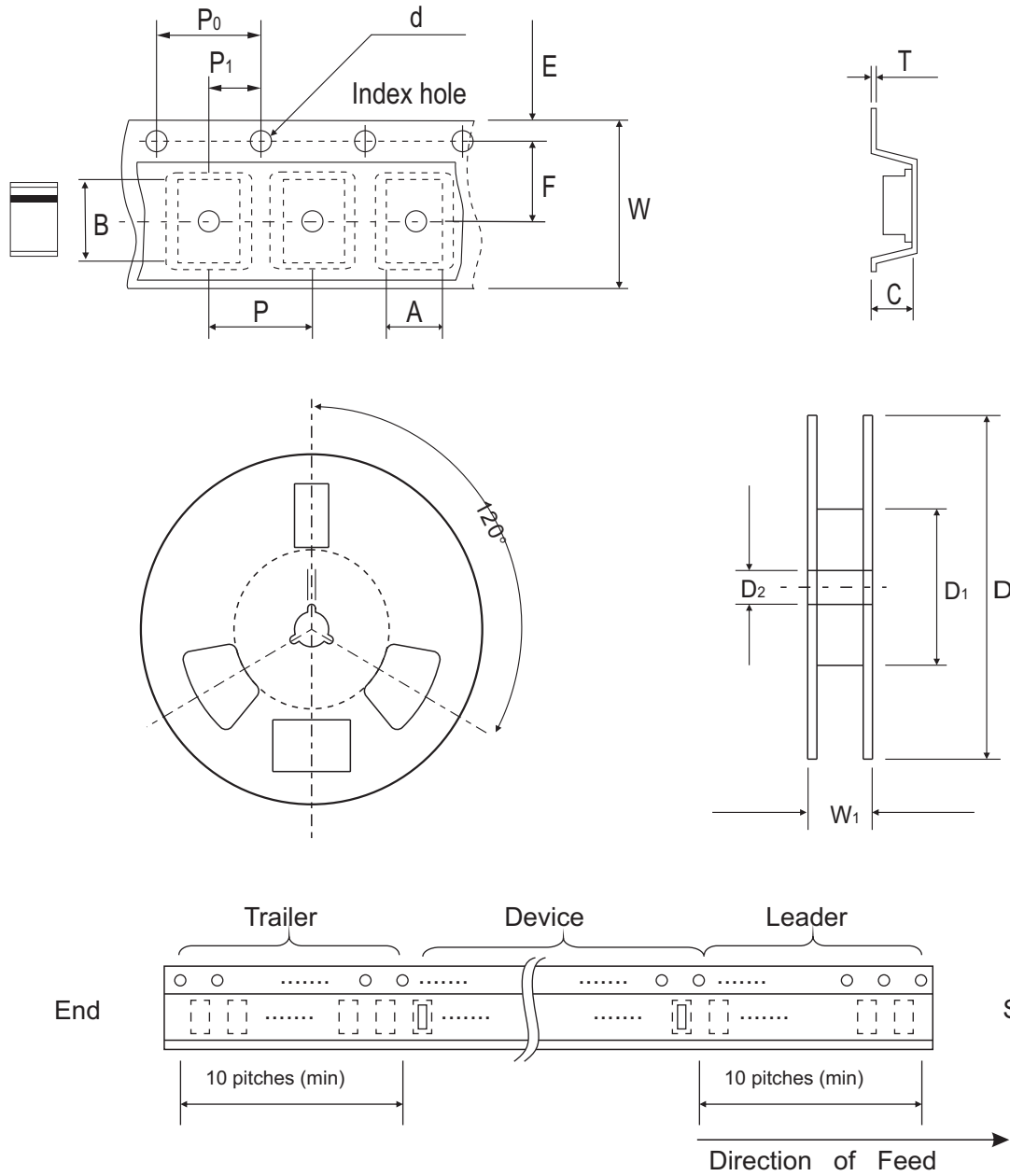
Fig.5 Test Circuit Diagram and Reverse Recovery Time Characteristics



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.



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 ± 0.004	0.153 ± 0.004	0.066 ± 0.004	0.059 ± 0.004	7.007 ± 0.079	2.441 MIN.	0.512 ± 0.020

Mini-SMA/SOD-123	SYMBOL	E	F	P	P0	P1	T	W	W1
	(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 ± 0.039

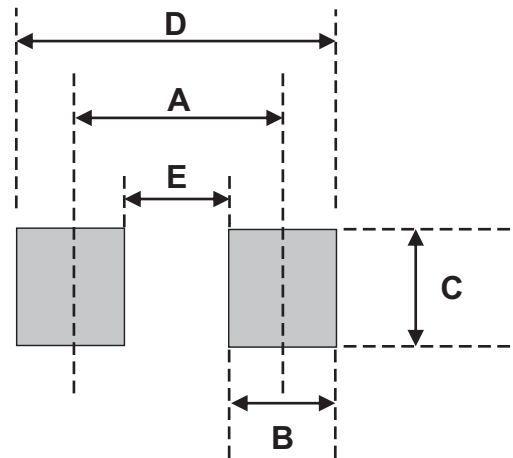
Marking Code

Part Number	Marking Code
CFRM101-HF	F1
CFRM102-HF	F2
CFRM103-HF	F3
CFRM104-HF	F4
CFRM105-HF	F5
CFRM106-HF	F6
CFRM107-HF	F7



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	2500	7