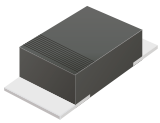
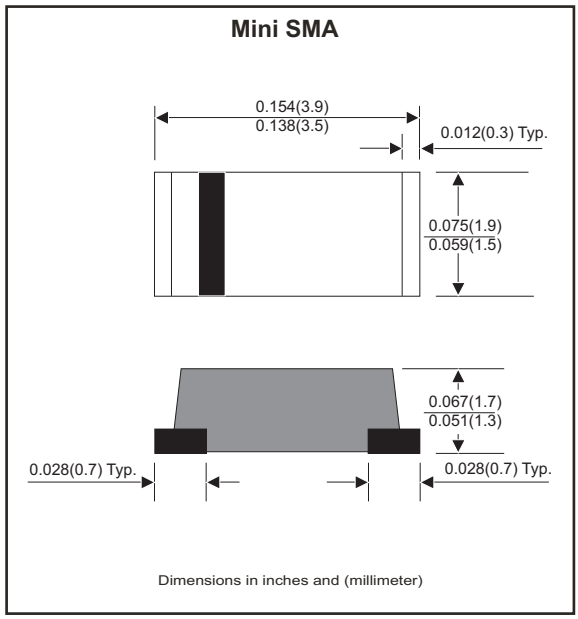
CFRM104-G Thru. CFRM107-G

Voltage: 400 to 1000 Volts

Current: 1.0 A

RoHS Device





Features

-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.
-Ultrafast recovery time for high efficiency.
-High surge current capability.
-Glass passivated chip junction.

Mechanical data

-Epoxy: UL94V-0 rated flame retardant.
-Case: Molded plastic, SOD-123H/MINI SMA
-Terminals: Solderable per MIL-STD-750, Method 2026.
-Polarity: Indicated by cathode band.
-Mounting Position: any
-Weight: 0.018 grams approx.

Circuit diagram

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

Parameter		Symbol	CFRM 104-G	CFRM 105-G	CFRM 107-G	Unit
Repetitive peak reverse voltage		V_{RRM}	400	600	1000	V
RMS voltage		V_{RMS}	280	420	700	V
Continuous reverse voltage		V_R	400	600	1000	V
Forward rectified current		I_O	1.0			A
Maximum forward voltage @I_F= 1.0A		V_F	1.3			V
Forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	30			A
Max.Reverse current $V_R=V_{RRM}$	@T_A= 25 °C	I_R	5.0			μA
	@T_A=125 °C		100			
Reverse recovery time (note 1)		t_{rr}	150	250	500	nS
Thermal resistance, junction to case		$R_{\theta JC}$	35			°C/W
Diode junction capacitance		C_J	15			pF
Operating junction temperature f=1MHz and applied 4V DC reverse voltage		T_J	-55 to +150			°C
Storage temperature range		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

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

Rating and Characteristic Curves (CFRM104-G Thru. CFRM107-G)

Fig.1- Forward characteristics

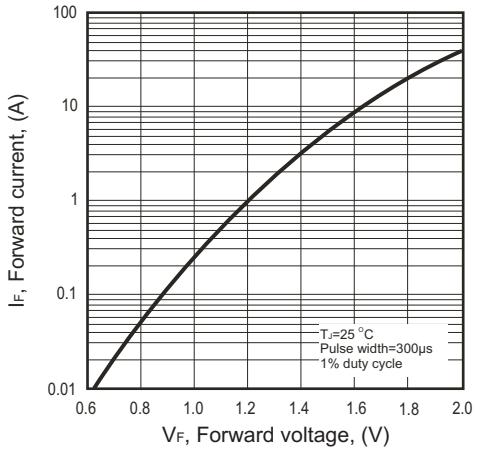


Fig.2- Forward current derating curve

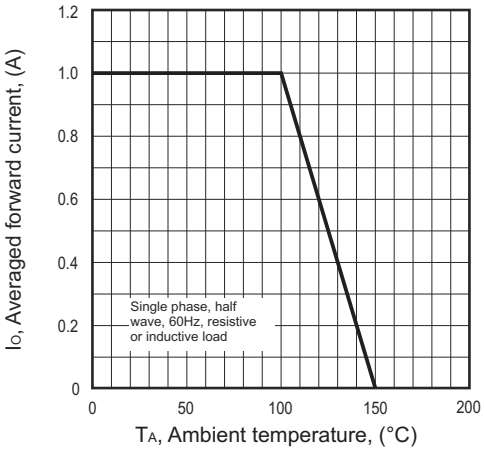
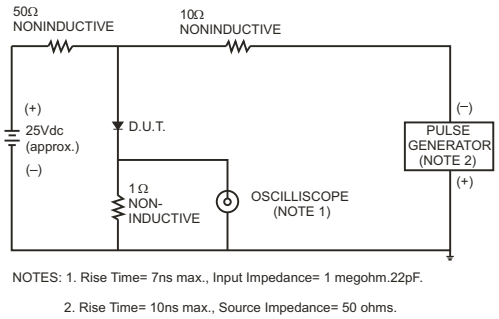


Fig.3- Test circuit diagram and reverse recovery time characteristics



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

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

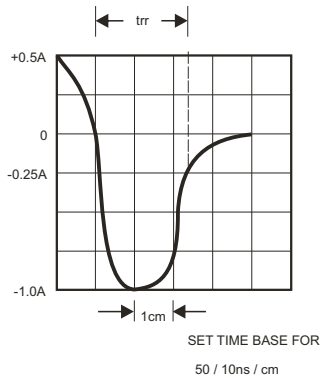


Fig.4- Max. Non-repetitive forward surge current

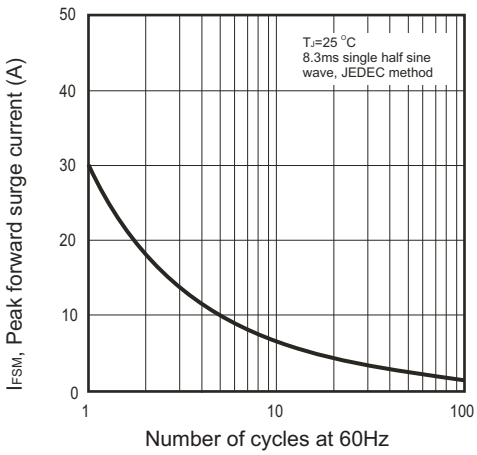
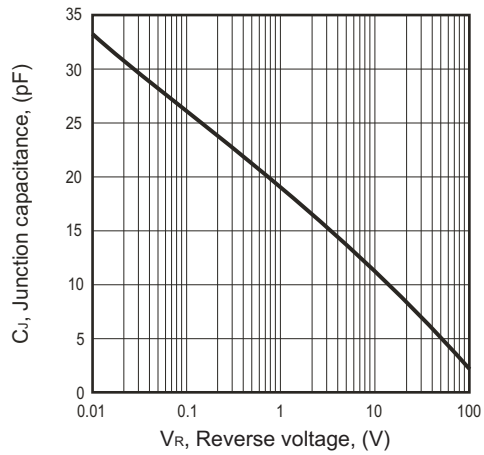
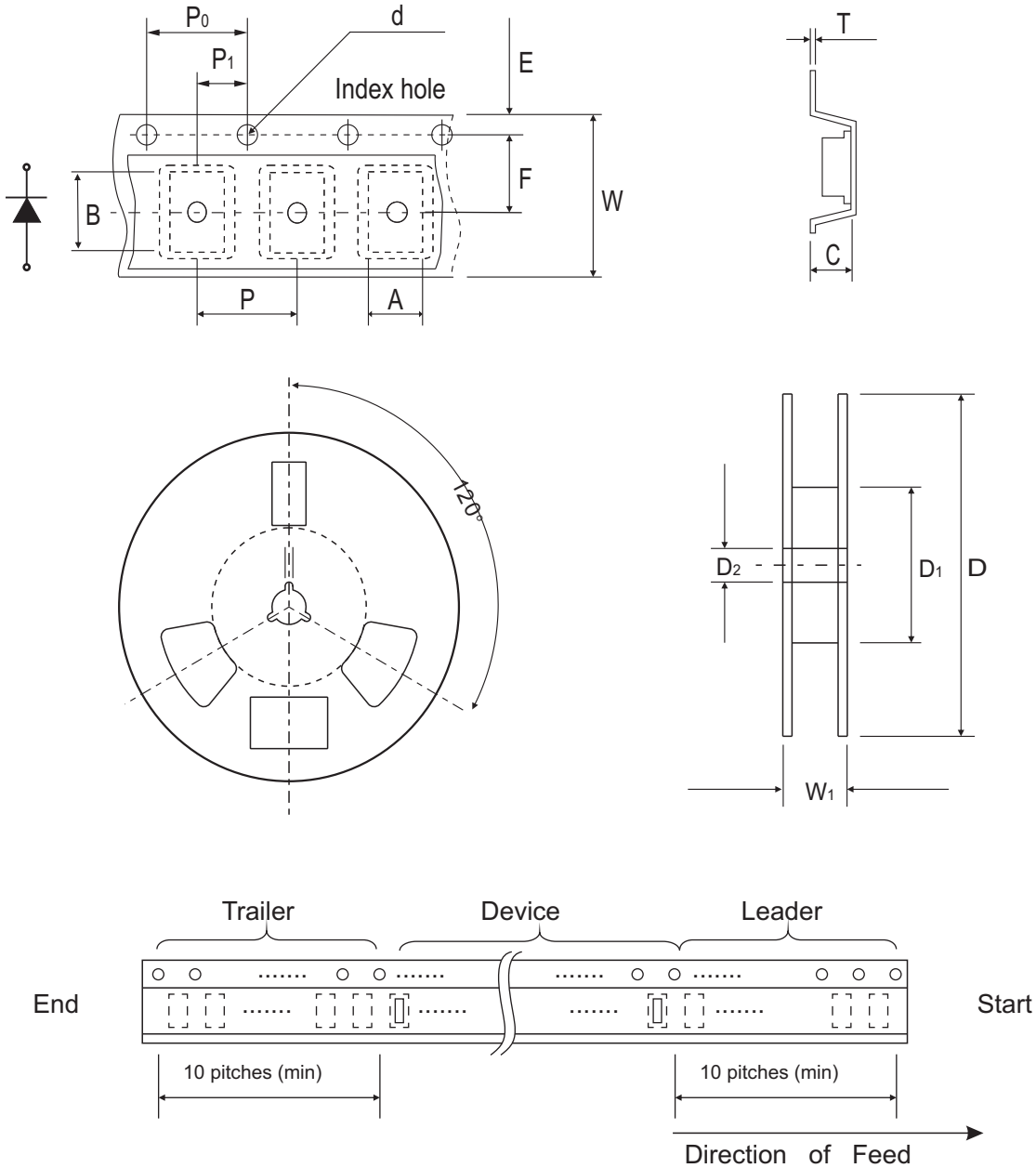


Fig.5- Typical junction capacitance



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D1	D2
Mini-SMA/SOD-123	(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	7.00 ± 0.079	2.440 MIN.	0.512 ± 0.020

	SYMBOL	E	F	P	P0	P1	T	W	W1
Mini-SMA/SOD-123	(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	0.314 ± 0.012	0.449 ± 0.039

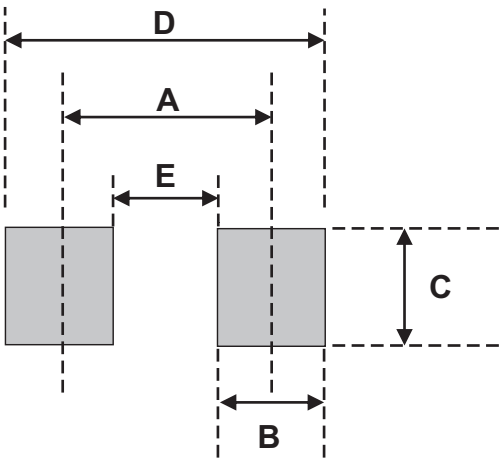
Marking Code

Part Number	Marking Code
CFRM104-G	F4
CFRM105-G	F5
CFRM107-G	F7

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	REEL PACK	
	REEL (pcs)	Reel Size (inch)
Mini-SMA / SOD-123	2,500	7