

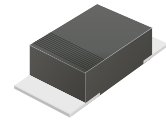
CSFM103-HF Thru. CSFM105-HF

Reverse Voltage: 200 to 600 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

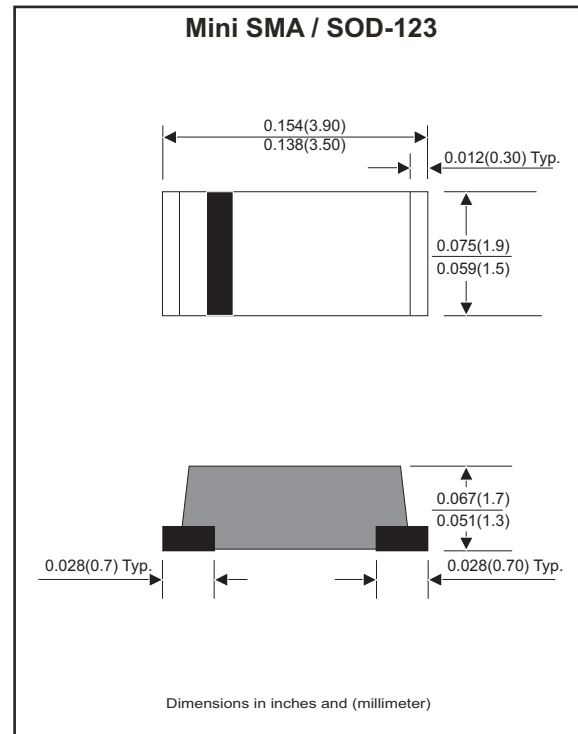


Features

- Batch process design,excellent power dissipation offers better reverse leakage current and thermal resistance.
- Tiny plastic SMD package.
- Super fast recovery time for switching mode application.
- High current capability.
- High surge current capability.
- Glass passivated chip junction.

Mechanical data

- Epoxy: UL 94-V0 rated flame retardant.
- Case: Molded plastic, SOD-123/Mini SMA.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight: 0.018 grams approx.



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

Parameter	Conditions	Symbol	CSFM 103-HF	CSFM 104-HF	CSFM 105-HF	Unit
Repetitive peak reverse voltage		V _{RRM}	200	400	600	V
Continuous reverse voltage		V _{DC}	200	400	600	V
RMS voltage		V _{RMS}	140	280	420	V
Max. forward rectified current	Ambient temperature=50°C	I _O	1.0			A
Maximum Instantaneous forward voltage at I _F =1.0A		V _F	0.95	1.25	1.70	V
Forward surge current	8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	25			A
Max. Reverse recovery time	I _F =0.5A , I _R =1.0A I _{RR} =0.25A	T _{rr}	35			nS
Max.Reverse current	V _R =V _{RRM} T _J =@25°C V _R =V _{RRM} T _J =@125°C	I _R	5.0 100			μA
Typ. Thermal resistance	Junction to ambient	R _{θJA}	42			°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C _J	10			pF
Operating junction temperature		T _J	-55 to +150			°C
Storage temperature range		T _{STG}	-65 to +175			°C

Rating and Characteristic Curves (CSFM103-HF Thru. CSFM105-HF)

Fig.1- Typical Forward Characteristics

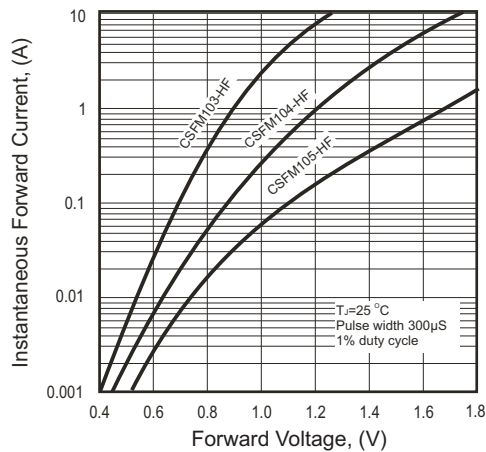


Fig.2-Typical Forward Current Derating Curve

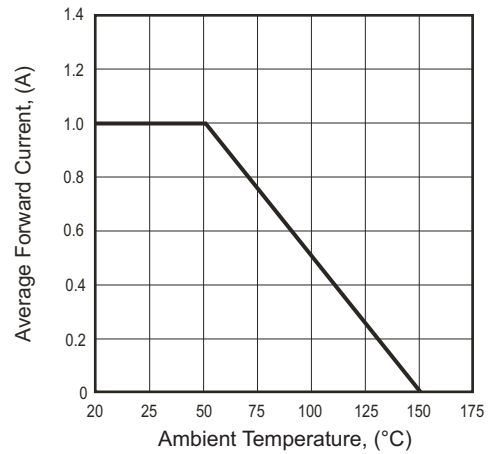
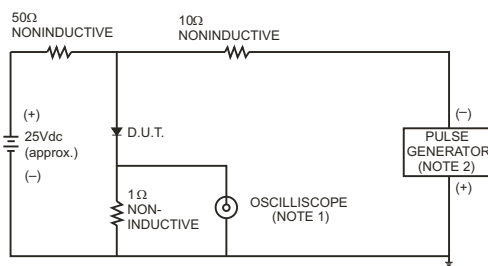


Fig.3- Test Circuit Diagram and Reverse Recovery Time Characteristics



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

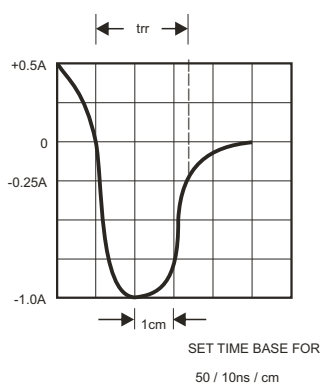


Fig.4 - Non-repetitive Forward Surge Current

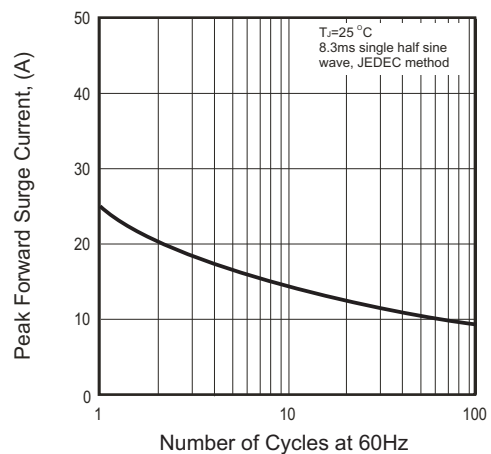
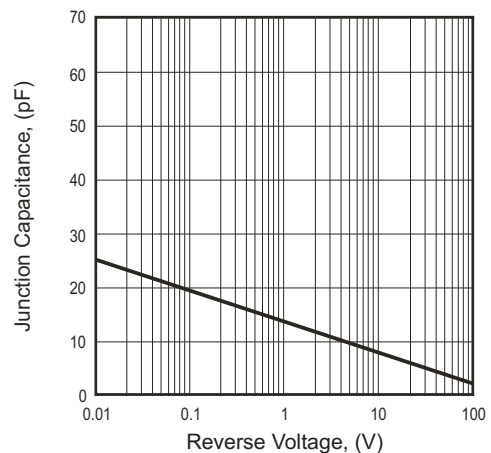
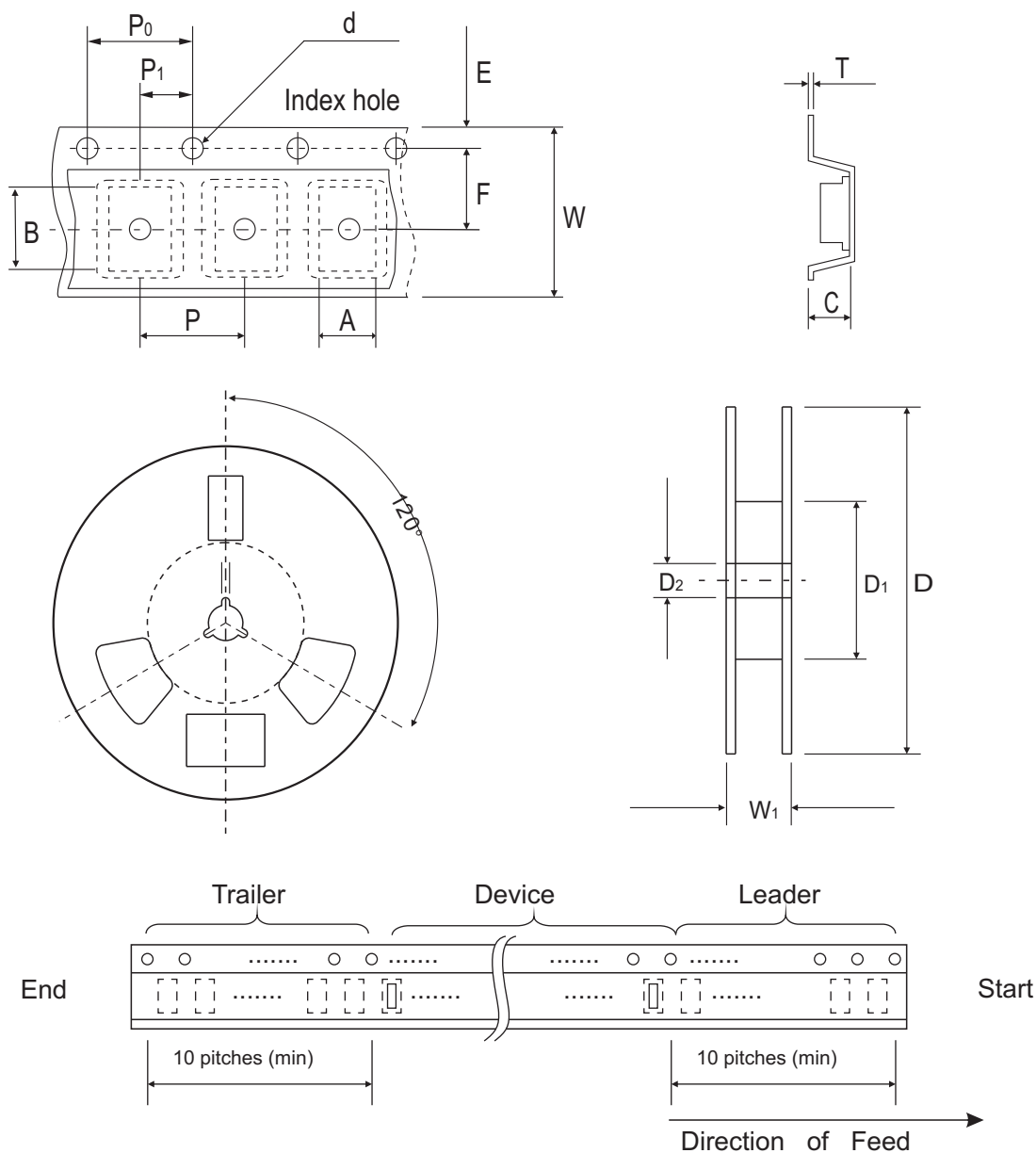


Fig.5- Typical Junction Capacitance



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

Marking Code

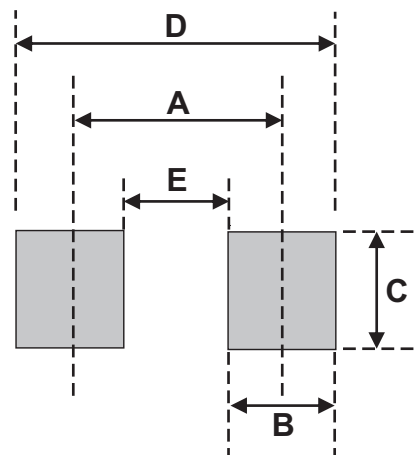
Part Number	Marking Code
CSFM103-HF	S4
CSFM104-HF	S6
CSFM105-HF	S8



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