

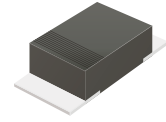
CSFMT104-HF Thru. CSFMT106-HF

Reverse Voltage: 200 to 400 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

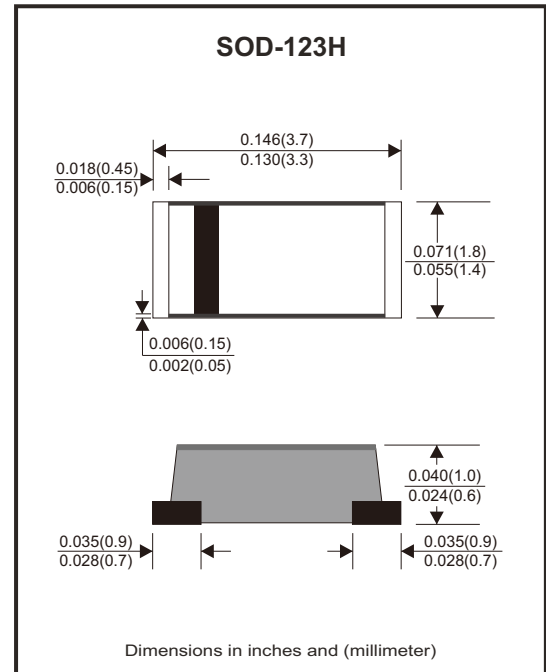


Features

- 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.
- Super fast recovery time for switching mode application.
- 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: 0.011 grams approx.



Circuit diagram

Cathode 1 2 Anode

Maximum Ratings and Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	CSFMT104-HF	CSFMT106-HF	Unit
Max. repetitive peak reverse voltage	V_{RRM}	200	400	V
Max. DC blocking voltage	V_{DC}	200	400	V
Max. RMS voltage	V_{RMS}	140	280	V
Max. Average forward rectified current	I_o	1.0		A
Max. Forward voltage @ $I_F=1.0A$	V_F	0.95	1.25	V
Max. Reverse recovery time (Note 1)	T_{RR}	35		ns
Peak forward surge current 8.3ms single half sine-wave (JEDEC method)	I_{FSM}	25		A
Max. DC reverse current at rated DC blocking voltage	$T_J=25^\circ\text{C}$	I_R	5.0	μA
	$T_J=125^\circ\text{C}$		100	
Typ. Thermal resistance junction to ambient air	$R_{\theta JA}$	42		$^\circ\text{C/W}$
Typ. Junction capacitance Measured at 1MHz and applied reverse voltage of 4 VDC	C_J	10		pF
Operating junction temperature range	T_J	-55 to +150		$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150		$^\circ\text{C}$

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.

REV:D

Rating and Characteristic Curves (CSFMT104-HF Thru. CSFMT106-HF)

Fig.1 - Typical Forward Current Derating Curve

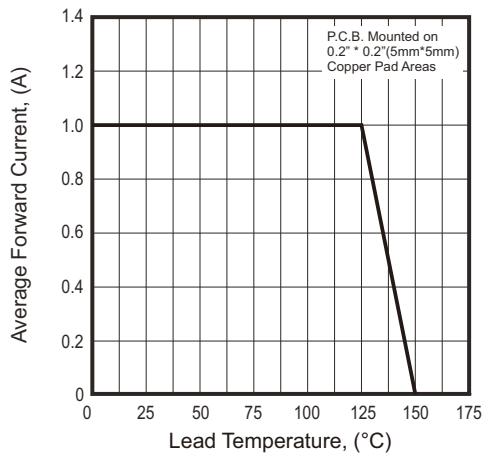


Fig.2 - Typical Forward Characteristics

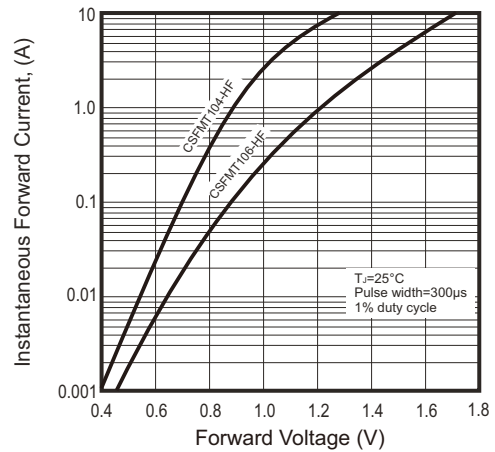
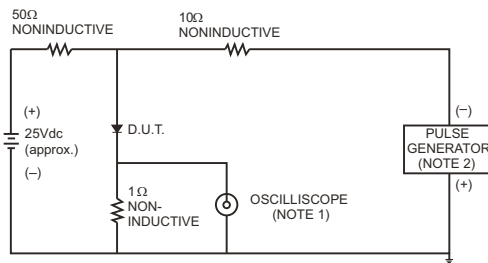


Fig.3- Test Circuit Diagram and Reverse Recovery Time Characteristics



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

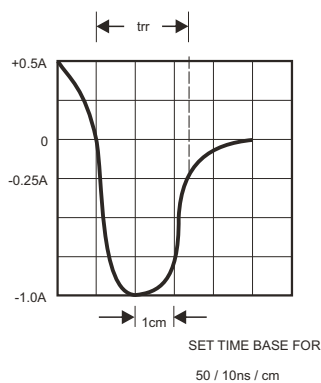


Fig.4 - Maximum Non-repetitive Forward Surge Current

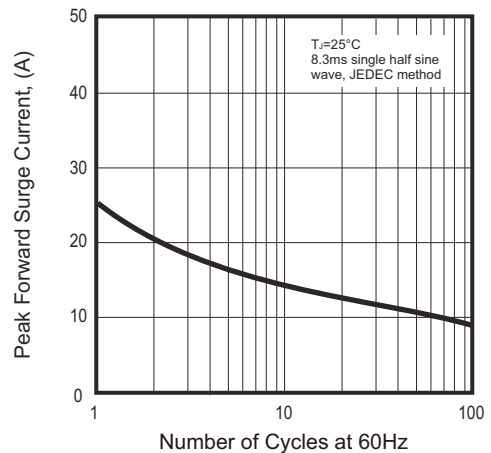
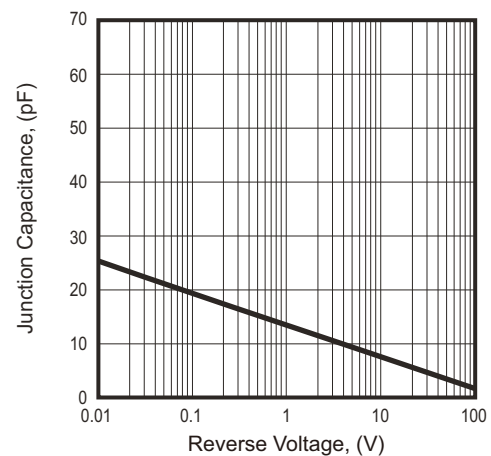
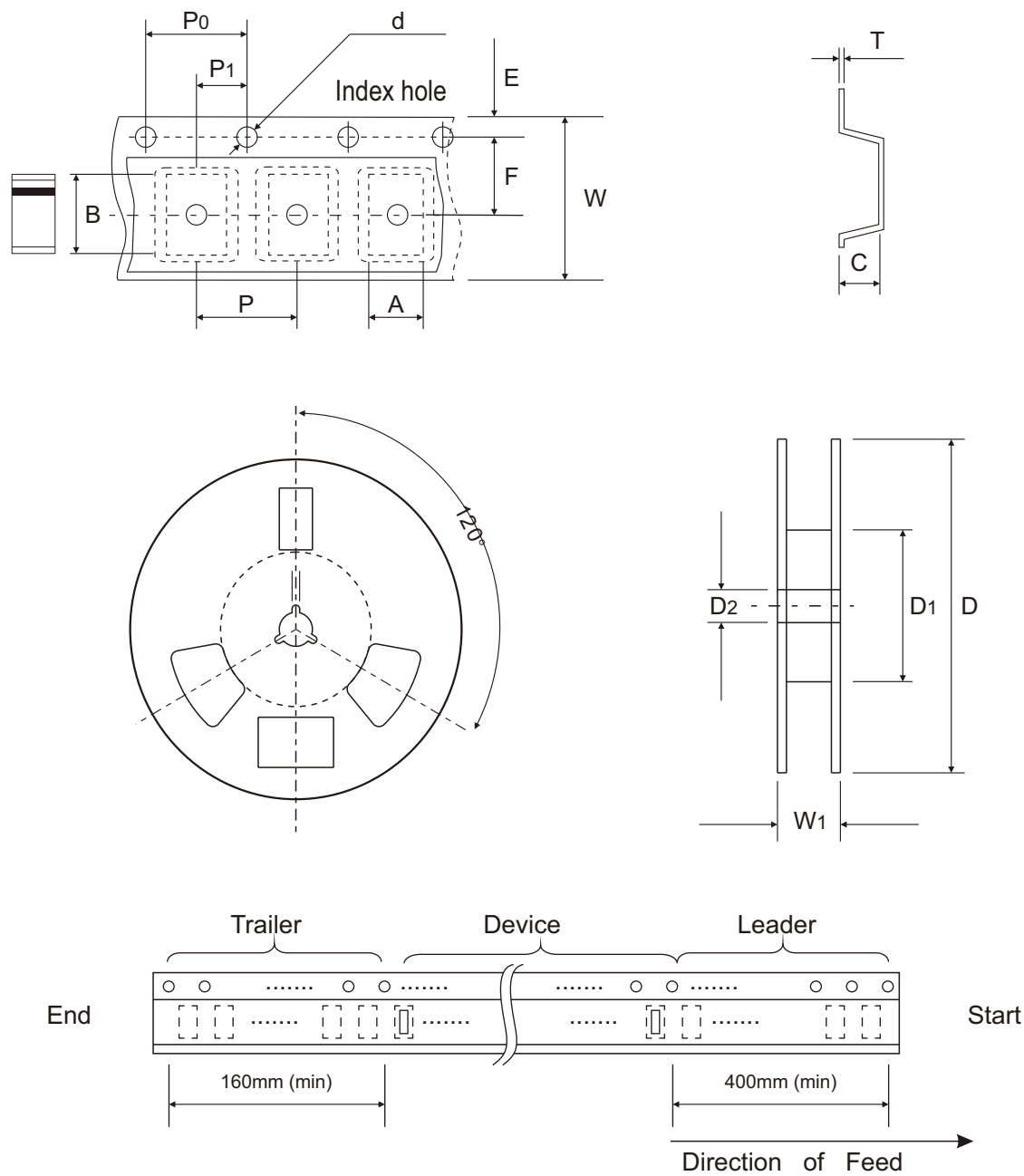


Fig.5 - Typical Junction Capacitance



Reel Taping Specification



SOD-123H	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.00 ± 0.10	3.85 ± 0.10	1.10 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	62.00 (min)	13.00 ± 0.50
	(inch)	0.079 ± 0.004	0.152 ± 0.004	0.043 ± 0.004	0.059 ± 0.004	7.007 ± 0.079	2.441 (min)	0.512 ± 0.020

SOD-123H	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 ± 1.00
	(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

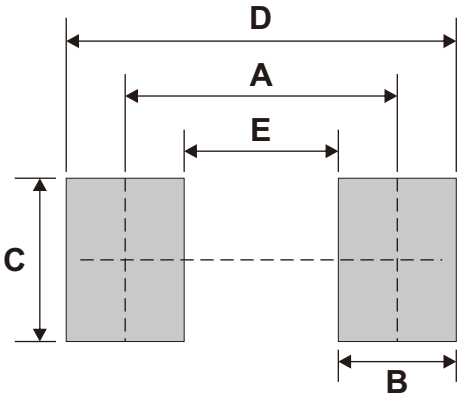
Part Number	Marking Code
CSFMT104-HF	S4
CSFMT106-HF	S6



xx = Product type marking code

Suggested PAD Layout

SIZE	SOD-123H	
	(mm)	(inch)
A	3.00	0.118
B	1.30	0.051
C	1.80	0.071
D	4.30	0.169
E	1.70	0.067



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123H	3,000	7