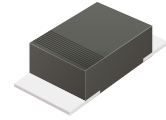


CSFM105-G

Reverse Voltage: 600 Volts

Forward Current: 1.0 Amp

RoHS Device

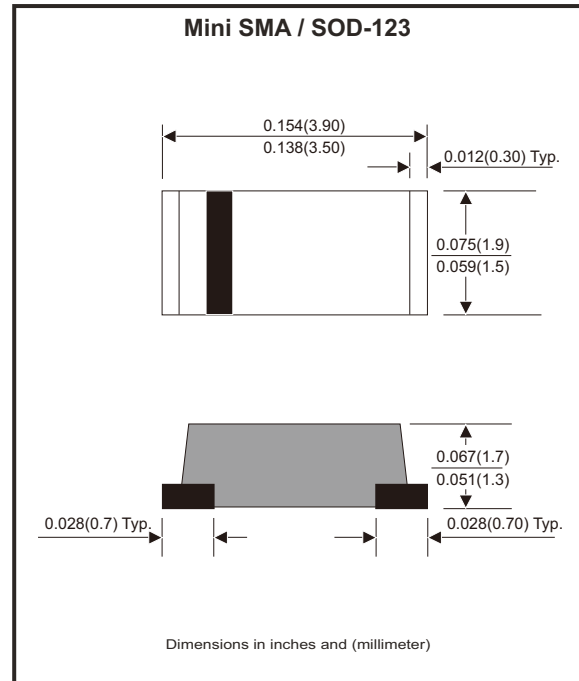


Features

- 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, JEDEC 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.



Circuit Diagram



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

Parameter	Conditions	Symbol	CSFM105-G	Unit
Repetitive peak reverse voltage		V_{RRM}	600	V
Continuous reverse voltage		V_{DC}	600	V
RMS voltage		V_{RMS}	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	1.70	V
Max. 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	$V_R=V_{RRM}$ $T_J=@25^{\circ}C$ $V_R=V_{RRM}$ $T_J=@125^{\circ}C$	I_R	5.0 100	μA
Typ. Thermal resistance	Junction to ambient	$R_{\theta JA}$	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 (CSFM105-G)

Fig.1 - Typical Forward Characteristics

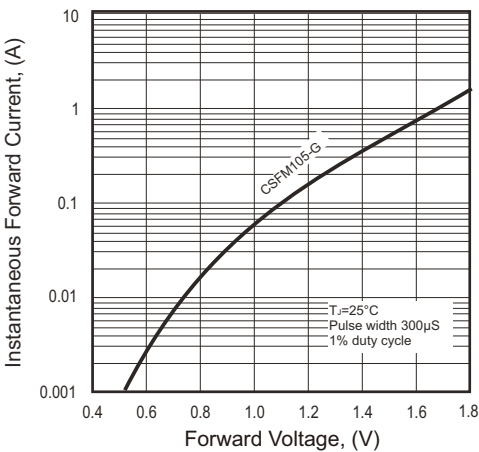


Fig.2 - Typical Forward Current Derating Curve

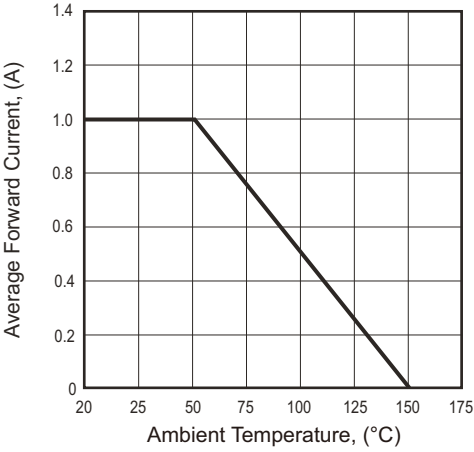
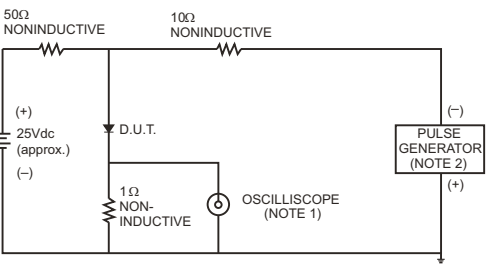


Fig.3 - Test Circuit Diagram and Reverse Recovery Time Characteristics



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

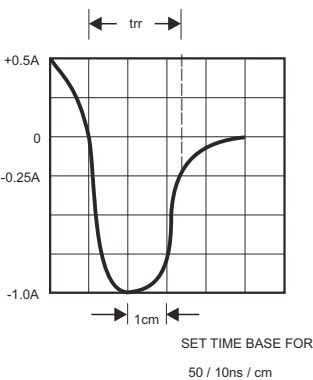


Fig.4 - Non-repetitive Forward Surge Current

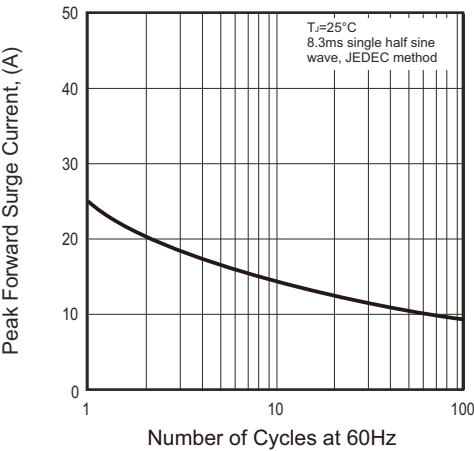
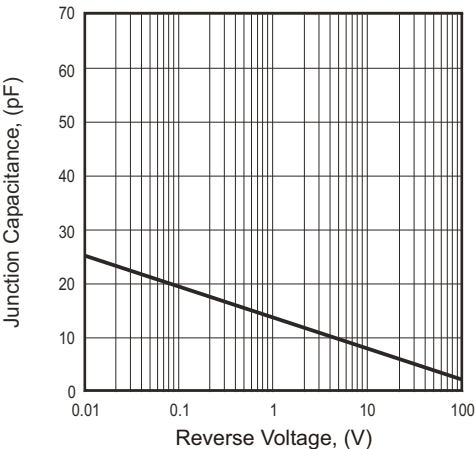
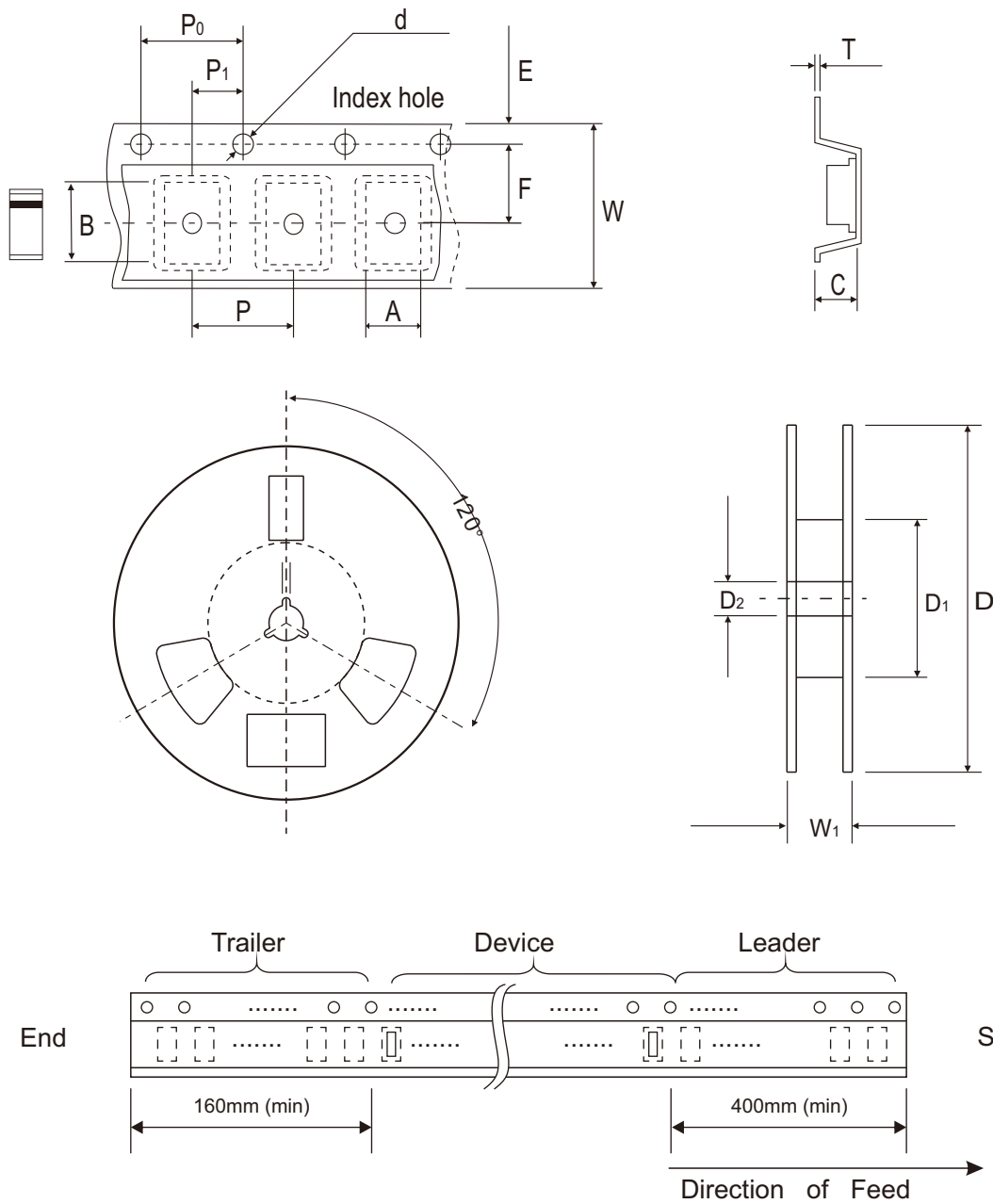


Fig.5 - Typical Junction Capacitance



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	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

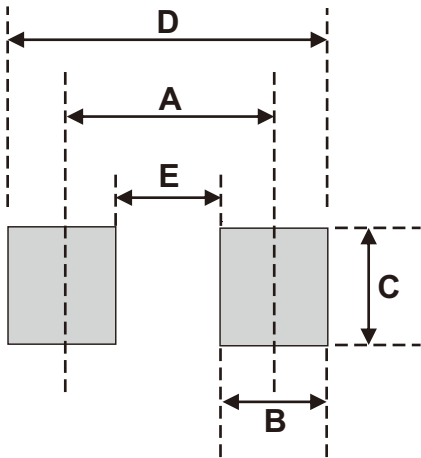
Part Number	Marking Code
CSFM105-G	S8



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	2500	7