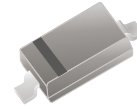


MMSD103-HF

RoHS Device
Halogen Free

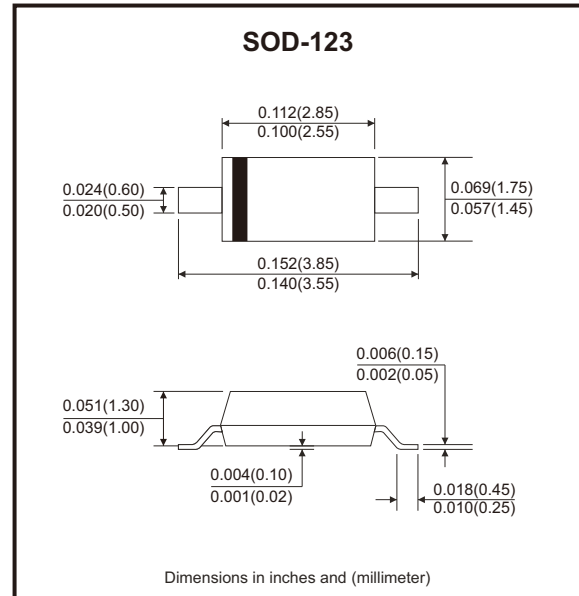


Features

- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.

Mechanical data

- Case: SOD-123 package, molded plastic.
- Polarity: Indicated by cathode band.
- Mounting position: Any.



Circuit Diagram



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

Parameter	Symbol	Value	Unit
Continuous reverse voltage	V _R	250	V
Forward continuous current	I _F	200	mA
Peak forward surge current	I _{FSM}	625	mA
Power dissipation	P _D	400	mW
Thermal resistance junction to case	R _{θJC}	260	°C/W
Thermal resistance junction to ambient	R _{θJA}	492	°C/W
Operating and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	$I_R = 100\mu A$	$V_{(BR)}$	250			V
Forward voltage	$I_F = 100mA$	V_F			1.0	V
	$I_F = 200mA$				1.25	
Reverse current	$V_R = 200V$	I_R			1	μA
	$V_R = 200V, T_J = 150^\circ C$				100	
Diode capacitance	$V_R = 0V, f = 1MHz$	C_D			5	pF
Reverse recovery time	$I_F = I_R = 30mA, R_L = 100\Omega$	t_{rr}			50	ns

Typical Rating and Characteristic Curves (MMSD103-HF)

Fig.1 - Forward Voltage

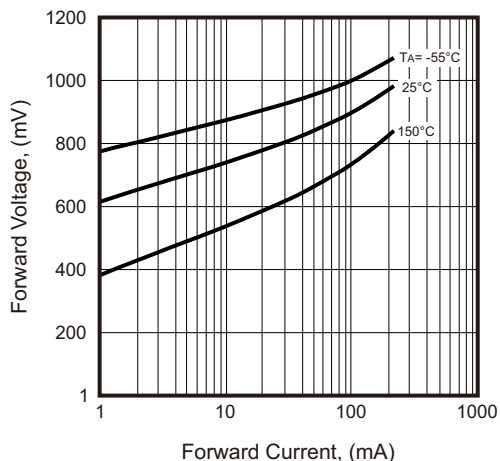


Fig.2 - Current Derating Curve

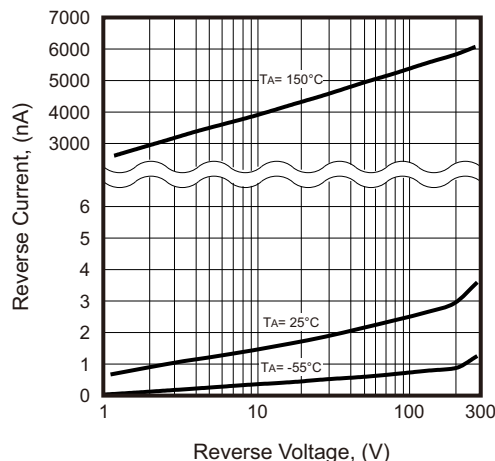
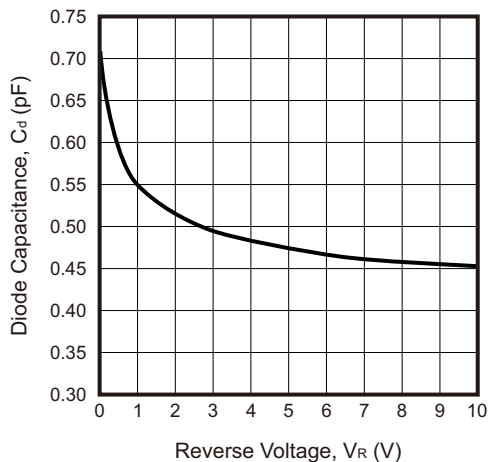
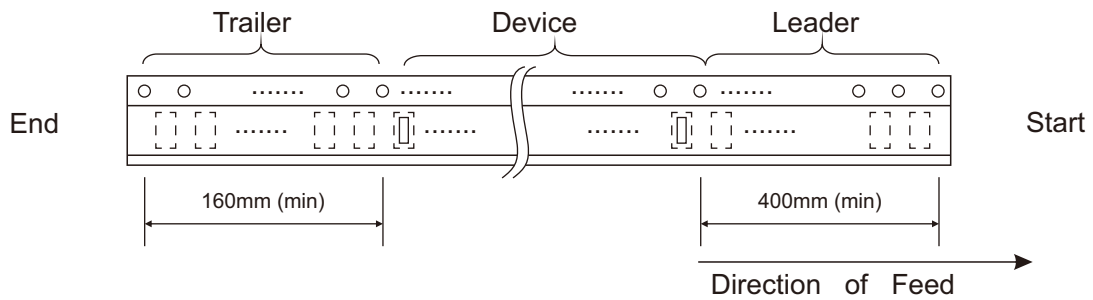
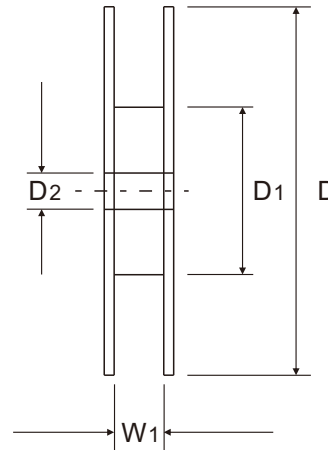
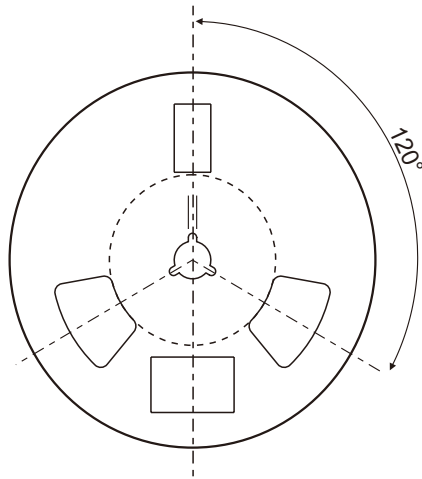
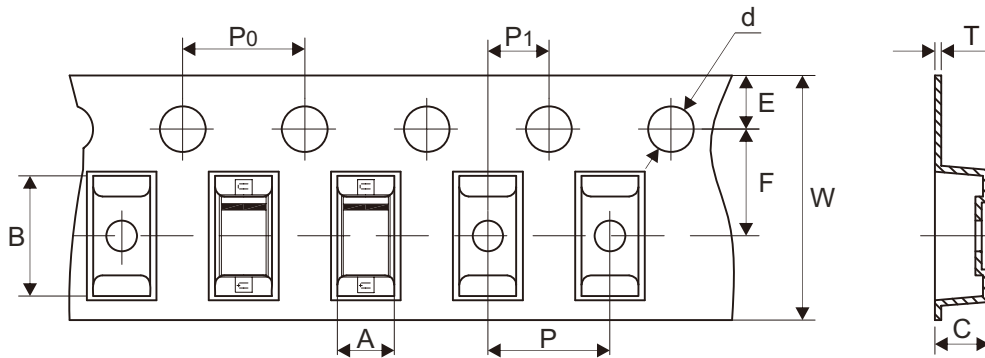


Fig.3 - Diode Capacitance



Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.94 ± 0.10	1.57 ± 0.10	1.55 ± 0.05	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.002	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOD-123	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.203 ± 0.013	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.001	0.315 + 0.012 - 0.004	0.374 ± 0.039

Marking Code

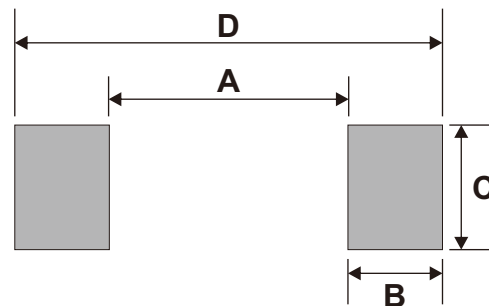
Part Number	Marking Code
MMSD103-HF	JS



█ = Cathode band

Suggested P.C.B. PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	2.36	0.093
B	0.91	0.036
C	1.22	0.048
D	4.19	0.165



Standard Packaging

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