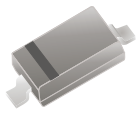
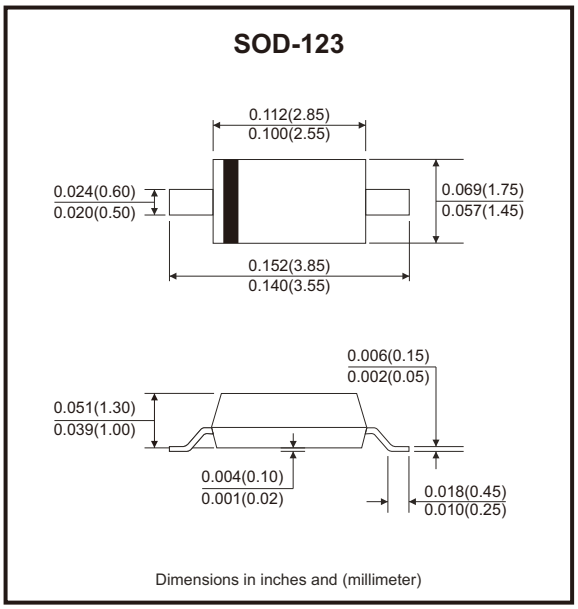
MMSD103-HF

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 T_A=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	$R_{\theta JC}$	260	°C/W
Thermal resistance junction to ambient	$R_{\theta JA}$	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 = 100μA	$V_{(BR)}$	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°C				100	
Diode capacitance	V_R = 0V, f = 1MHz	C_D			5	pF
Reverse recovery time	I_F = I_R = 30mA, R_L = 100Ω	t_{rr}			50	ns

Typical Rating and Characteristic Curves (MMSD103-HF)

Fig.1 - Forward Voltage

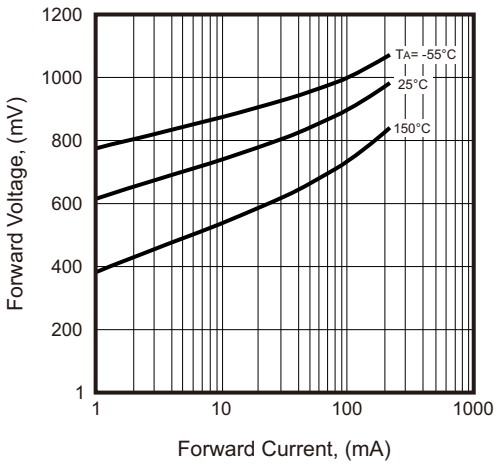


Fig.2 - Current Derating Curve

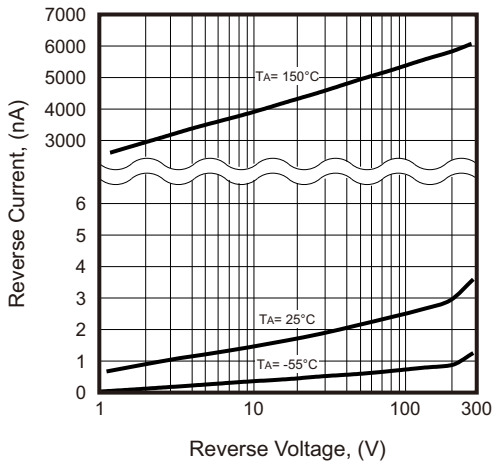
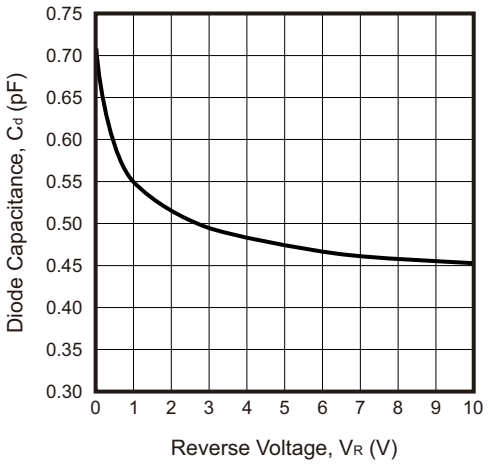
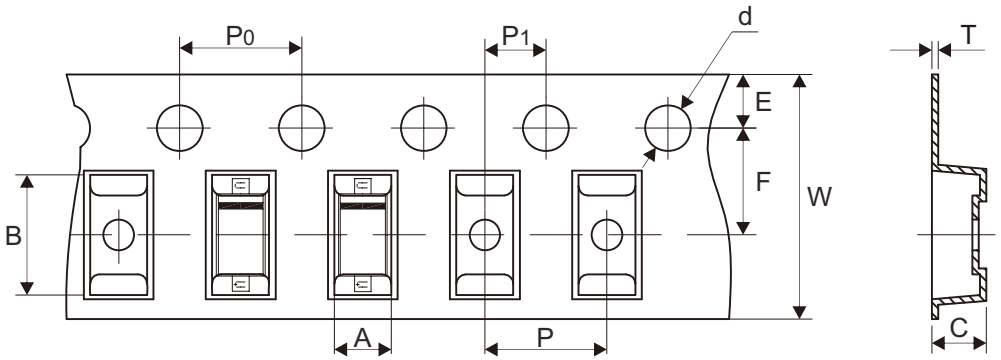
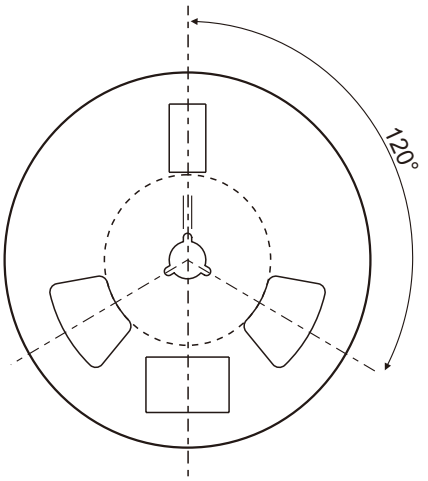


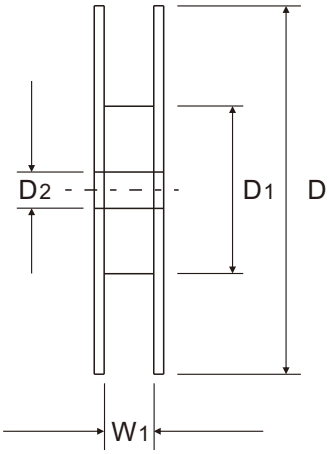
Fig.3 - Diode Capacitance

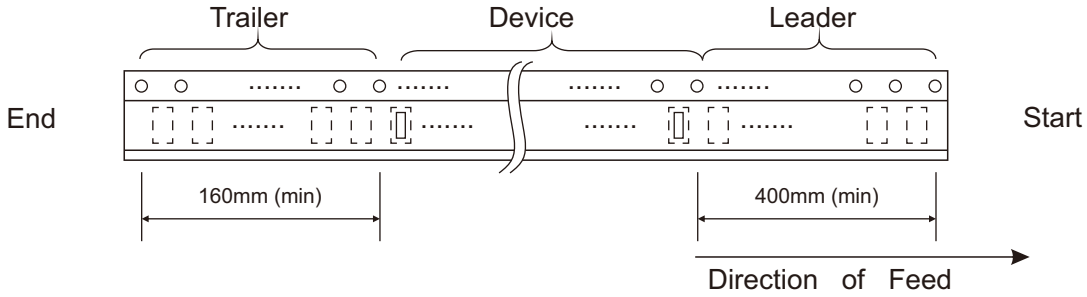


Reel Taping Specification







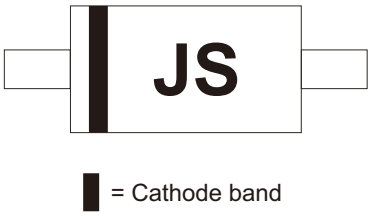


	SYMBOL	A	B	C	d	D	D_1	D_2
SOD-123	(mm)	1.85 ± 0.10	3.94 ± 0.10	1.57 ± 0.10	1.55 ± 0.05	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.002	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
SOD-123	(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

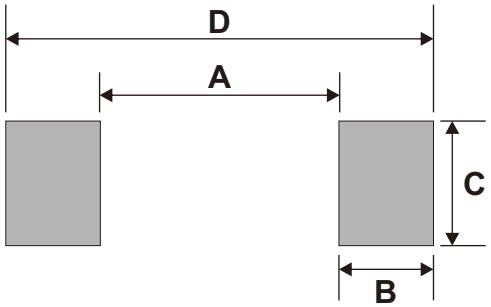
Marking Code

Part Number	Marking Code
MMSD103-HF	JS



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