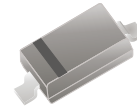


MMSZ4678-P2-HF Thru. MMSZ4716-P2-HF

RoHS Device
Halogen Free

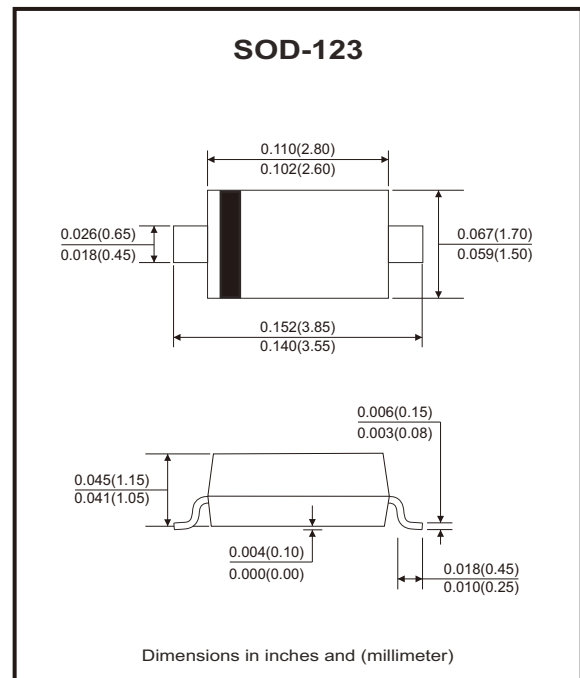


Features

- Wide voltage range selection: 1.8V~39V.
- Tight voltage tolerance: $\pm 5\%$.
- Constant voltage control.

Mechanical data

- Case: SOD-123, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.



Circuit Diagram



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

Parameter	Symbol	Value	Unit
Power dissipation	P _D	500	mW
Junction temperature	T _J	150	°C
Storage temperature range	T _{STG}	-55 to +125	°C
Maximum regulator current	I _{ZM}	P _D /V _Z	mA

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

Part Number	Zener Voltage (Pulse width =10ms)				Maximum Reverse Current		Marking Code
	V _Z @ I _{ZT}			I _{ZT}	I _R @ V _R	I _R	
	Min(V)	Typ(V)	Max(V)	(μA)	(μA)	(V)	
MMSZ4678-P2-HF	1.71	1.8	1.89	50	7.5	1.0	CC
MMSZ4679-P2-HF	1.90	2.0	2.10	50	5	1.0	CD
MMSZ4680-P2-HF	2.09	2.2	2.31	50	4	1.0	CE
MMSZ4681-P2-HF	2.28	2.4	2.52	50	2	1.0	CF
MMSZ4682-P2-HF	2.565	2.7	2.835	50	1	1.0	CH
MMSZ4683-P2-HF	2.85	3.0	3.15	50	0.8	1.0	CJ
MMSZ4684-P2-HF	3.135	3.3	3.465	50	7.5	1.5	CK
MMSZ4685-P2-HF	3.42	3.6	3.78	50	7.5	2.0	CM
MMSZ4686-P2-HF	3.705	3.9	4.095	50	5	2.0	CN
MMSZ4687-P2-HF	4.085	4.3	4.515	50	4	2.0	CP
MMSZ4688-P2-HF	4.465	4.7	4.935	50	10	3.0	CT
MMSZ4689-P2-HF	4.845	5.1	5.355	50	10	3.0	CU
MMSZ4690-P2-HF	5.32	5.6	5.88	50	10	4.0	CV
MMSZ4691-P2-HF	5.89	6.2	6.51	50	10	5.0	CA
MMSZ4692-P2-HF	6.46	6.8	7.14	50	10	5.1	CX
MMSZ4693-P2-HF	7.125	7.5	7.875	50	10	5.7	CY
MMSZ4694-P2-HF	7.79	8.2	8.61	50	1	6.2	CZ
MMSZ4695-P2-HF	8.265	8.7	9.135	50	1	6.6	DC
MMSZ4696-P2-HF	8.645	9.1	9.555	50	1	6.9	DD
MMSZ4697-P2-HF	9.50	10	10.50	50	1	7.6	DE
MMSZ4698-P2-HF	10.45	11	11.55	50	0.05	8.4	DF
MMSZ4699-P2-HF	11.40	12	12.60	50	0.05	9.1	DH
MMSZ4700-P2-HF	12.35	13	13.65	50	0.05	9.8	DJ
MMSZ4701-P2-HF	13.30	14	14.70	50	0.05	10.6	DK
MMSZ4702-P2-HF	14.25	15	15.75	50	0.05	11.4	DM
MMSZ4703-P2-HF	15.20	16	16.80	50	0.05	12.1	DN
MMSZ4704-P2-HF	16.15	17	17.85	50	0.05	12.9	DP
MMSZ4705-P2-HF	17.10	18	18.90	50	0.05	13.6	DT

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

Part Number	Zener Voltage (Pulse width =10ms)				Maximum Reverse Current		Marking Code
	V _Z @ I _{ZT}			I _{ZT}	I _R @ V _R	I _R	
	Min(V)	Typ(V)	Max(V)	(μA)	(μA)	(V)	
MMSZ4706-P2-HF	18.05	19	19.95	50	0.05	14.4	DU
MMSZ4707-P2-HF	19.00	20	21.00	50	0.01	15.2	DV
MMSZ4708-P2-HF	20.90	22	23.10	50	0.01	16.7	DA
MMSZ4709-P2-HF	22.80	24	25.20	50	0.01	18.2	DX
MMSZ4710-P2-HF	23.75	25	26.25	50	0.01	19	DY
MMSZ4711-P2-HF	25.65	27	28.35	50	0.01	20.4	EA
MMSZ4712-P2-HF	26.60	28	29.40	50	0.01	21.2	EC
MMSZ4713-P2-HF	28.50	30	31.50	50	0.01	22.8	ED
MMSZ4714-P2-HF	31.35	33	34.65	50	0.01	25	EE
MMSZ4715-P2-HF	34.20	36	37.80	50	0.01	27.3	EF
MMSZ4716-P2-HF	37.05	39	40.95	50	0.01	29.6	EH

Typical Rating and Characteristic Curves (MMSZ4678-P2-HF Thru. MMSZ4716-P2-HF)

Fig.1 - Typical Zener Breakdown

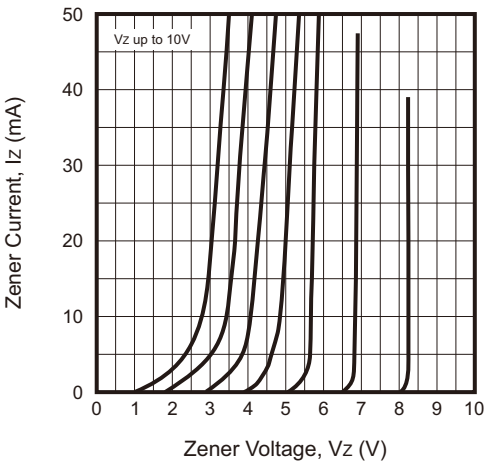
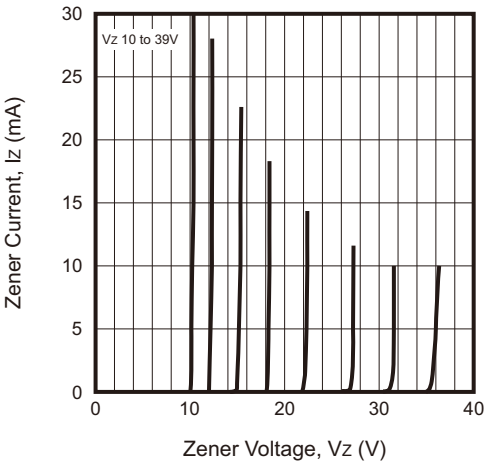
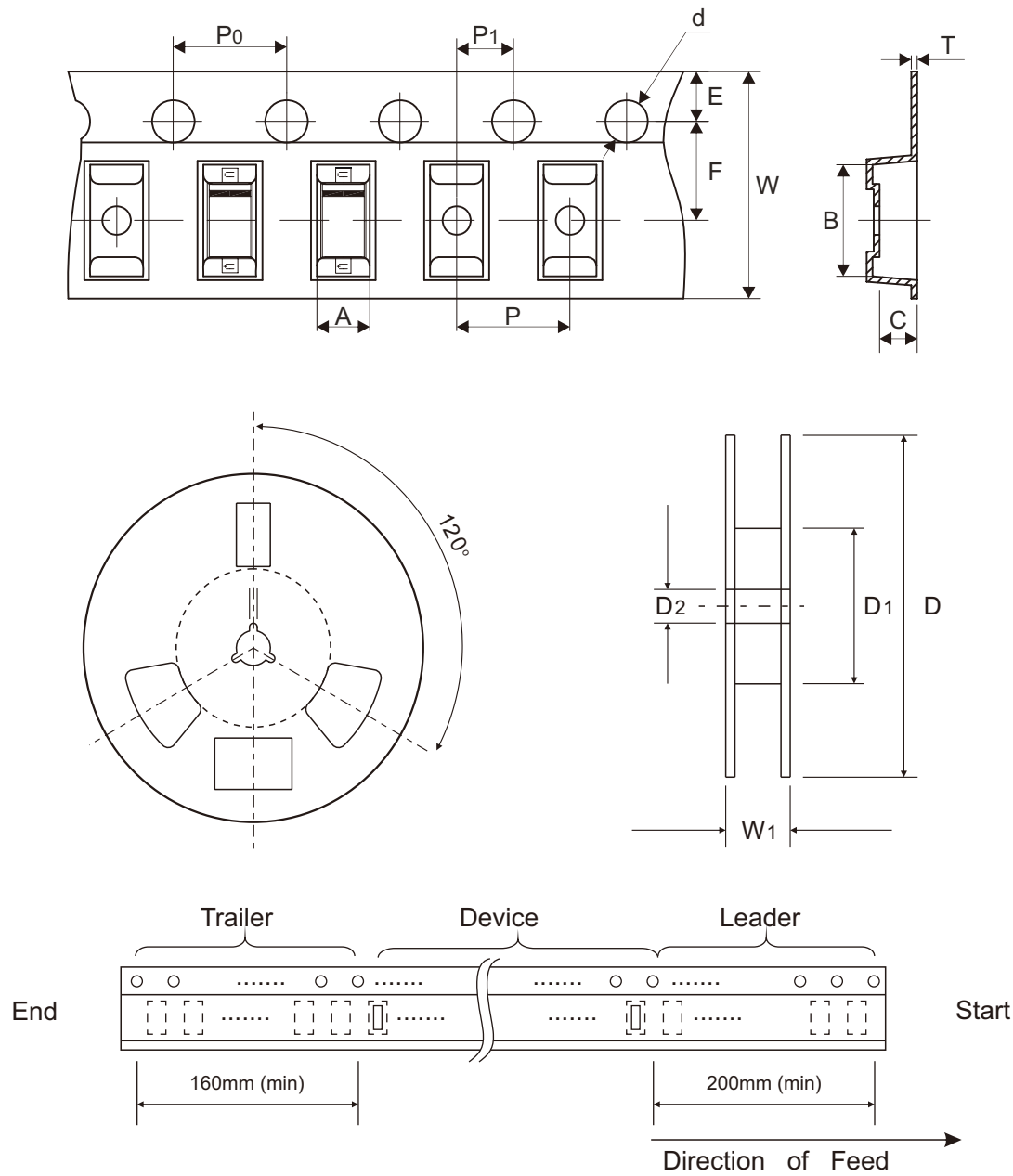


Fig.2 - Typical Zener Breakdown



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 ± 2.00	50.00 ± 0.50	13.00 ± 0.25
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.002	7.008 ± 0.079	1.969 ± 0.020	0.512 ± 0.010

SOD-123	SYMBOL	E	F	P	P1	P0	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.20 ± 0.02	8.00 + 0.30 - 0.10	11.50 ± 1.50
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.157 ± 0.004	0.008 ± 0.001	0.315 + 0.012 - 0.004	0.453 ± 0.059

Marking Code

Part Number	Marking Code
MMSZ4678-P2-HF Thru. MMSZ4716-P2-HF	See Page 2~3

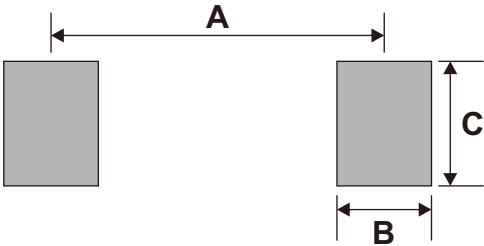


XX = Product type marking code

 = Cathode band

Suggested P.C.B. PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	3.24	0.128
B	0.80	0.031
C	1.00	0.039



Standard Packaging

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