

# MMSZ4XXX

Rev.F Mar.-2016

## 描述 / Descriptions

SOD-123 塑封封装 稳压二极管。  
Zener Diode in a SOD-123 Plastic Package.

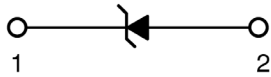
## 特征 / Features

用于 500mW 的 SOD-123 表面贴装稳压电路。  
Design for 500mW SOD-123 surface mount.

## 用途 / Applications

1.8V-43V 宽稳压范围，耗散功率最大可达 500mW。  
Wide zener reverse voltage range 1.8V-43V, Maximum  $P_D$  to 500mW.

## 内部等效电路 / Equivalent Circuit



## 引脚排列 / Pinning



PIN1:Cathode      PIN2:Anode

## 放大及印章代码 / $h_{FE}$ Classifications & Marking

见电性能参数。 See Electrical Characteristics.

**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Power Dissipation	$P_D$	500	mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	340	°C/W
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	150	°C/W
Junction and Storage Temperature Range	$T_j, T_{stg}$	-55~150	mA

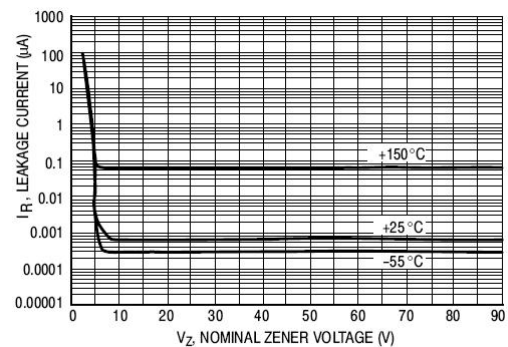
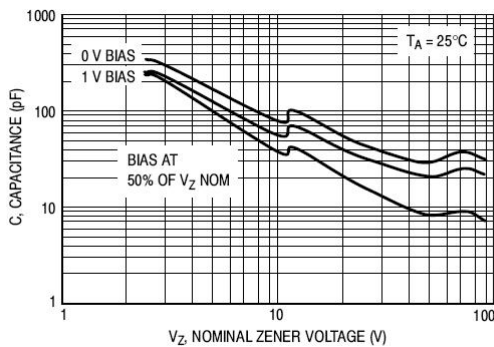
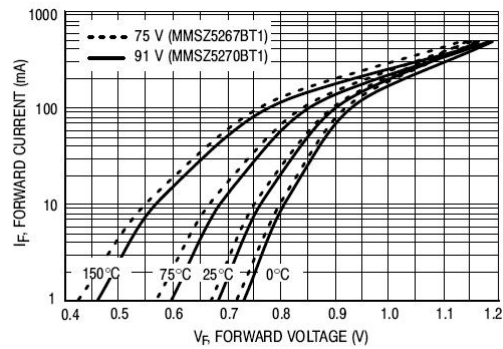
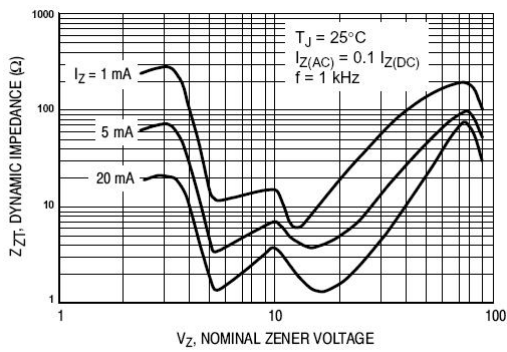
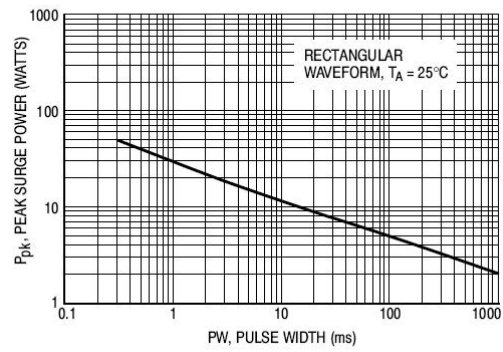
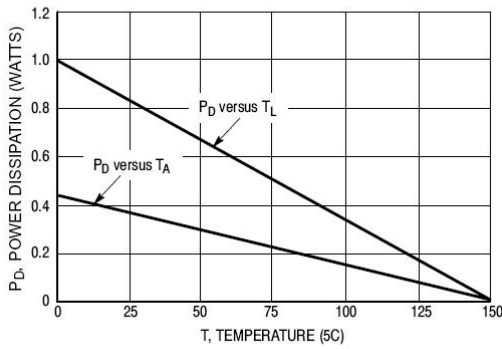
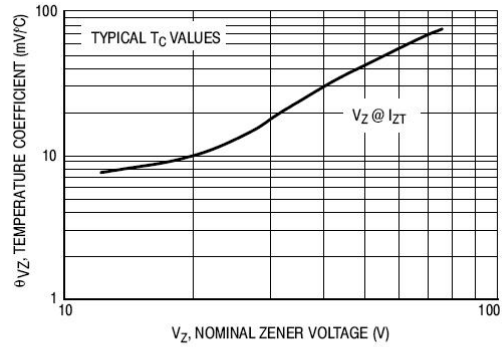
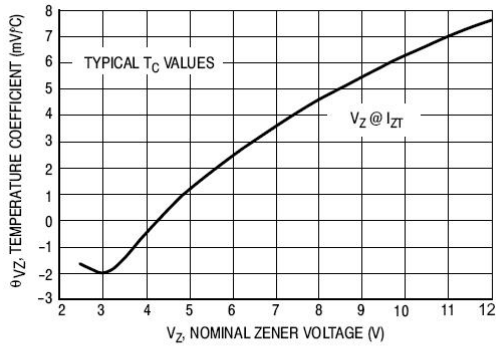
**电性能参数 / Electrical Characteristics(Ta=25°C)**

Device	Device Marking	Zener Voltage				Leakage Current	
		$V_Z$ (Volts)			$@I_{zT}$	$I_R@V_R$	
		Min	Nom	Max		uA	Volts
MMSZ4678	HCC	1.71	1.8	1.89	50	7.5	1
MMSZ4679	HCD	1.90	2.0	2.10	50	5	1
MMSZ4680	HCE	2.09	2.2	2.31	50	4	1
MMSZ4681	HCF	2.28	2.4	2.52	50	2	1
MMSZ4682	HCH	2.565	2.7	2.835	50	1	1
MMSZ4683	HCJ	2.85	3.0	3.15	50	0.8	1
MMSZ4684	HCK	3.13	3.3	3.47	50	7.5	1.5
MMSZ4685	HCM	3.42	3.6	3.78	50	7.5	2
MMSZ4686	HCN	3.70	3.9	4.10	50	5	2
MMSZ4687	HCP	4.09	4.3	4.52	50	4	2
MMSZ4688	HCT	4.47	4.7	4.94	50	10	3
MMSZ4689	HCU	4.85	5.1	5.36	50	10	3
MMSZ4690	HCV	5.32	5.6	5.88	50	10	4
MMSZ4691	HCA	5.89	6.2	6.51	50	10	5
MMSZ4692	HCX	6.46	6.8	7.14	50	10	5.1
MMSZ4693	HCY	7.13	7.5	7.88	50	10	5.7
MMSZ4694	HCZ	7.79	8.2	8.61	50	1	6.2
MMSZ4695	HDC	8.27	8.7	9.14	50	1	6.6
MMSZ4696	HDD	8.65	9.1	9.56	50	1	6.9
MMSZ4697	HDE	9.50	10	10.5	50	1	7.6

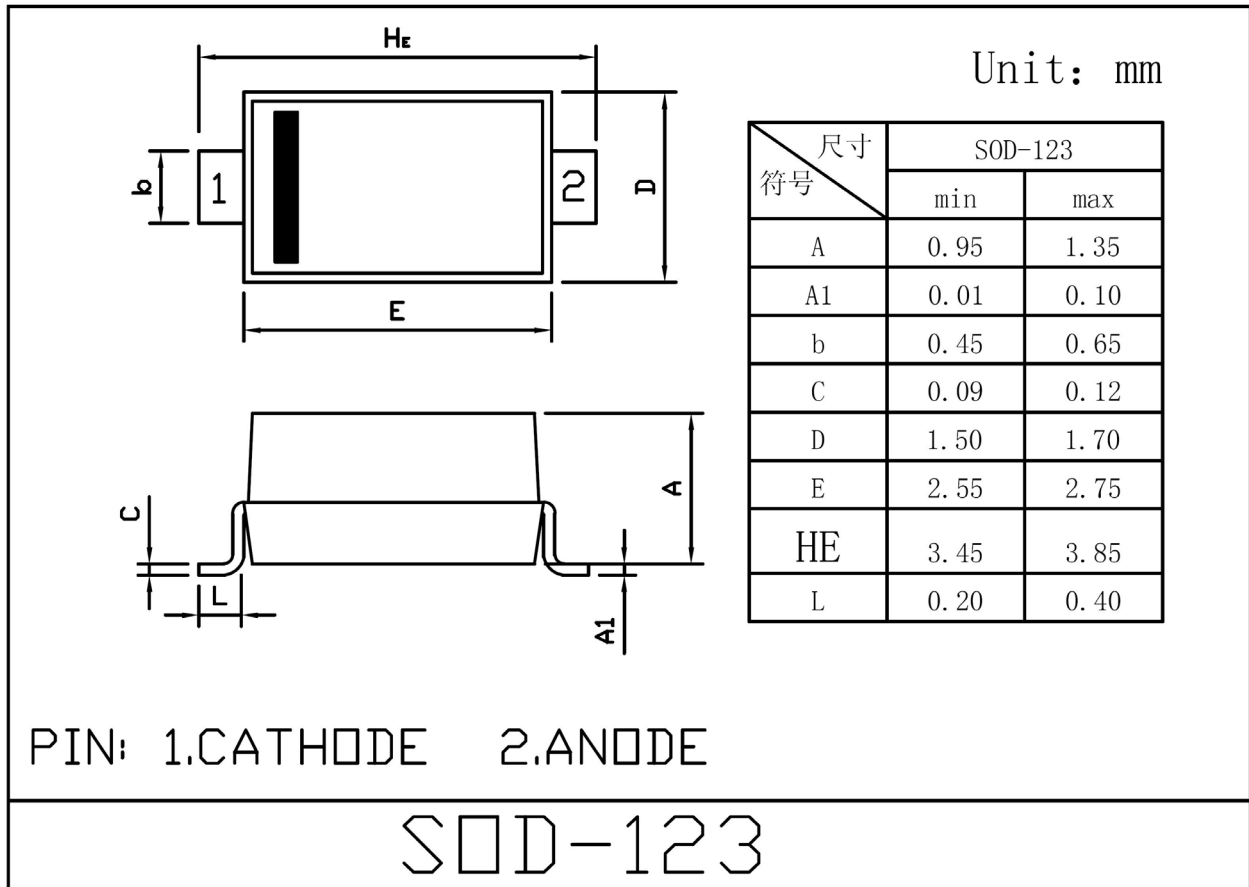
## 电性能参数 / Electrical Characteristics(Ta=25°C)

Device	Device Marking	Zener Voltage				Leakage Current	
		V <sub>Z</sub> (Volts)			@I <sub>ZT</sub>	I <sub>R</sub> @V <sub>R</sub>	
		Min	Nom	Max	uA	uA	Volts
MMSZ4698	HDF	10.45	11	11.55	50	0.05	8.4
MMSZ4699	HDH	11.40	12	12.60	50	0.05	9.1
MMSZ4700	HDJ	12.35	13	13.65	50	0.05	9.8
MMSZ4701	HDK	13.30	14	14.70	50	0.05	10.6
MMSZ4702	HDM	14.25	15	15.75	50	0.05	11.4
MMSZ4703	HDN	15.20	16	16.80	50	0.05	12.1
MMSZ4704	HDP	16.15	17	17.85	50	0.05	12.9
MMSZ4705	HDT	17.10	18	18.90	50	0.05	13.6
MMSZ4706	HDU	18.05	19	19.95	50	0.05	14.4
MMSZ4707	HDV	19.00	20	21.00	50	0.01	15.2
MMSZ4708	HDA	20.90	22	23.10	50	0.01	16.7
MMSZ4709	HDX	22.80	24	25.20	50	0.01	18.2
MMSZ4710	HDY	23.75	25	26.25	50	0.01	19.0
MMSZ4711	HEA	25.65	27	28.35	50	0.01	20.4
MMSZ4712	HEC	26.60	28	29.40	50	0.01	21.2
MMSZ4713	HED	28.50	30	31.50	50	0.01	22.8
MMSZ4714	HEE	31.35	33	34.65	50	0.01	25.0
MMSZ4715	HEF	34.20	36	37.80	50	0.01	27.3
MMSZ4716	HEH	37.05	39	40.95	50	0.01	29.6
MMSZ4717	HEJ	40.87	43	45.15	50	0.01	32.6

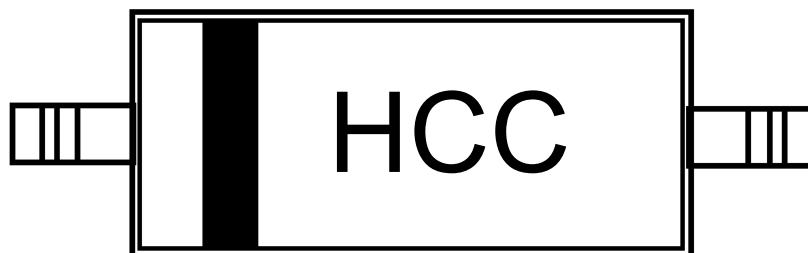
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

H： 为公司代码

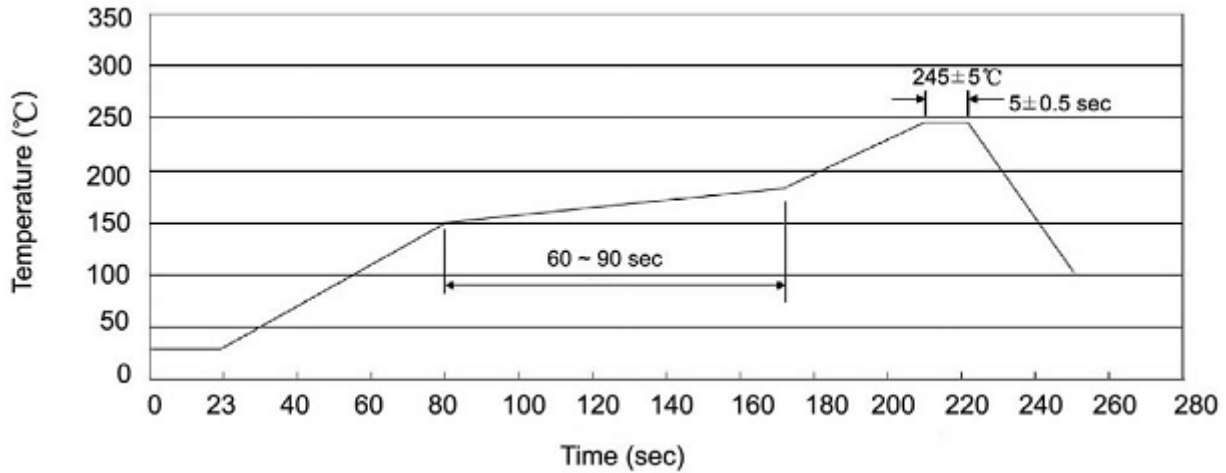
CC： 为型号代码

Note:

H: Company Code.

CC: Product Type.

**回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)**



说明：

- 1、预热温度 25 ~ 150°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

**耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions**

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

**包装规格 / Packaging SPEC.**

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOD-123	3,000	10	30,000	8	240,000	7" x8	180×120×180	385×257×392

**使用说明 / Notices**