

SMA Surface Mounted Zener Diode 表面贴装稳压二极管

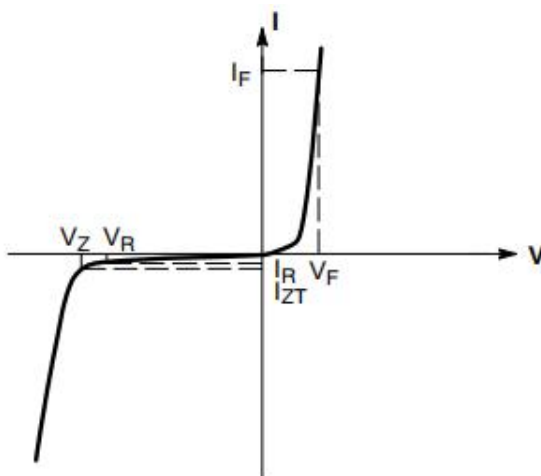
■SMA(DO-214AC) Internal Configuration 内部结构



■Features 特点

Characteristic 特性参数	Symbol 符号	Max 最大值	Unit 单位
Power dissipation 耗散功率	$P_D(T_A=25^{\circ}\text{C})$	500	mW
Power dissipation 耗散功率	$P_D(T_L=75^{\circ}\text{C})$	1500	mW
Forward Voltage 正向电压	$V_F(@ I_F=200\text{mA})$	1.5	V
Reverse Voltage 反向电压	V_Z	3.3-240	V
Thermal Resistance J-L 结到管脚热阻	$R_{\theta JL}$	83	$^{\circ}\text{C/W}$
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	250	$^{\circ}\text{C/W}$
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	$150^{\circ}\text{C}, -55\text{to}+150^{\circ}\text{C}$	

ELECTRICAL CHARACTERISTICS	
SYMBOL	PARAMETER
V_Z	Reverse Zener voltage at I_{ZT}
I_{ZT}	Reverse current
Z_{ZT}	Maximum Zener impedance at I_{ZT}
I_{ZK}	Reverse current
Z_{ZK}	Maximum Zener impedance at I_{ZK}
I_R	Reverse leakage current at V_R
V_R	Reverse voltage
I_F	Forward current
V_F	Forward voltage at I_F
I_{ZM}	Maximum DC Zener current



■Electrical Characteristics 电特性

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Type Number	V _Z (V)@I _{ZT}			I _{ZT} (mA)	Z _{ZT} (Ω) @I _{ZT}	I _R (uA) @V _R	V _R (V)	I _{ZRM} (mA)	Marking
	Nom.	Min.	Max.						
1SMA5913B	3.3	3.10	3.50	75	10	100	1	285	913B
1SMA5914B	3.6	3.40	3.80	69	10	100	1	263	914B
1SMA5915B	3.9	3.70	4.10	64	9.0	50	1	243	915B
1SMA5916B	4.3	4.06	4.56	58	9.0	25	1	219	916B
1SMA5917B	4.7	4.50	4.93	53	8.0	10	1	203	917B
1SMA5918B	5.1	4.84	5.36	49	7.0	10	1	186	918B
1SMA5919B	5.6	5.32	5.92	45	5.0	10	2	170	919B
1SMA5920B	6.2	5.86	6.51	41	2.0	10	3	154	920B
1SMA5921B	6.8	6.46	7.18	37	3.5	10	4	140	921B
1SMA5922B	7.5	7.12	7.88	34	4.0	10	5	127	922B
1SMA5923B	8.2	7.79	8.67	31	4.5	10	6	116	923B
1SMA5924B	9.1	8.60	9.59	28	5.0	10	7	104	924B
1SMA5925B	10	9.50	10.5	25	7.0	10	7	95	925B
1SMA5926B	11	10.4	11.6	23	8.0	5	8	86	926B
1SMA5927B	12	11.4	12.6	21	9.0	5	9	79	927B
1SMA5928B	13	12.4	14.1	19	10	5	10	71	928B
1SMA5929B	15	13.8	15.8	17	14	5	11	63	929B
1SMA5930B	16	15.2	17.1	16	16	5	12	58	930B
1SMA5931B	18	16.8	19.2	14	20	5	13	52	931B
1SMA5932B	20	19.0	21.2	13	22	5	15	47	932B
1SMA5933B	22	20.8	23.3	12	23	5	17	43	933B
1SMA5934B	24	22.8	26.0	11	25	5	18	38	934B
1SMA5935B	27	25.3	28.9	9.5	35	5	21	35	935B
1SMA5936B	30	28.2	32.0	8.5	40	5	23	31	936B
1SMA5937B	33	31.3	34.9	7.5	45	5	25	28	937B
1SMA5938B	36	34.2	37.9	7.0	50	5	27	26	938B
1SMA5939B	39	37.2	41.5	6.5	60	5	30	24	939B
1SMA5940B	43	40.9	45.6	6.0	70	1	32	22	940B
1SMA5941B	47	44.9	49.8	5.5	80	1	35	20	941B
1SMA5942B	51	48.6	54.0	5.0	95	1	38	18	942B
1SMA5943B	56	53.6	58.8	4.5	110	1	42	17	943B
1SMA5944B	62	58.9	65.6	4.0	125	1	47	15	944B
1SMA5945B	68	64.6	71.7	3.7	150	1	52	14	945B
1SMA5946B	75	71.2	78.8	3.3	175	1	56	12	946B
1SMA5947B	82	77.9	87.0	3.0	200	1	62	11	947B
1SMA5948B	91	86.0	96.0	2.8	250	1	69	10	948B
1SMA5949B	100	95.0	105	2.5	350	1	76	9.5	949B
1SMA5950B	110	104	116	2.3	450	1	84	8.6	950B
1SMA5951B	120	114	127	2.0	550	1	91	7.8	951B
1SMA5952B	135	125	142	1.9	700	1	100	7.0	952B
1SMA5953B	150	140	157	1.7	900	1	110	6.3	953B
1SMA5954B	165	155	172	1.6	1100	1	120	5.8	954B
1SMA5955B	180	170	191	1.4	1200	1	135	5.2	955B
1SMA5956B	200	189	211	1.2	1400	1	150	4.7	956B
1SMA5957B	240	228	252	1.2	1600	1	185	4.5	957B

■ Typical Characteristic Curve 典型特性曲线

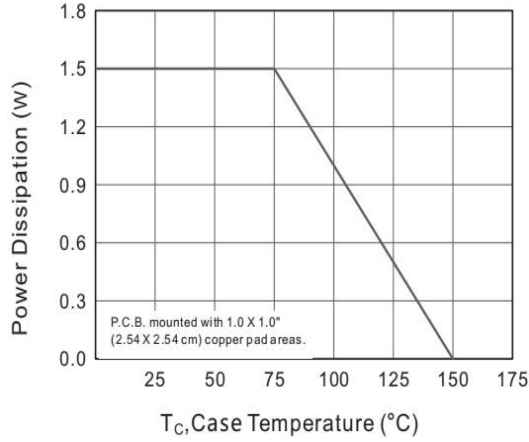


Figure 1: Power Derating Curve

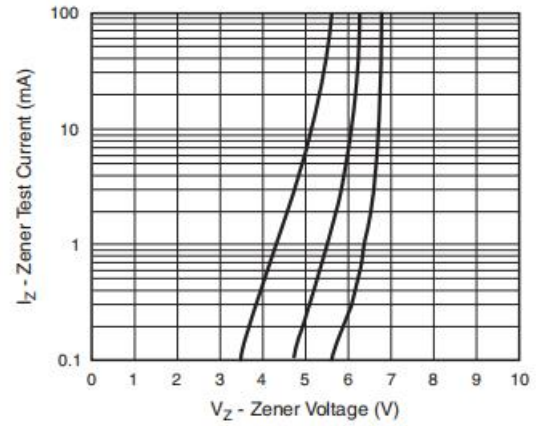


Figure 2: Zener Breakdown Characteristics

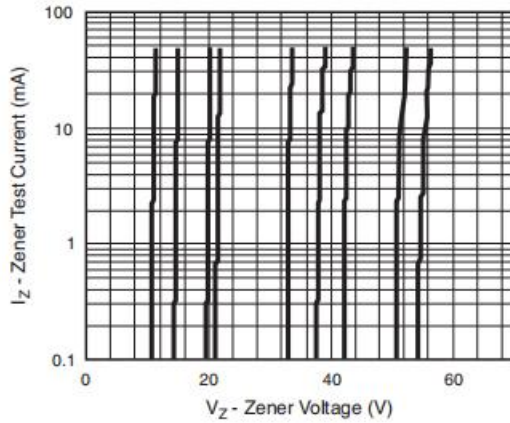


Figure 3: Zener Breakdown Characteristics

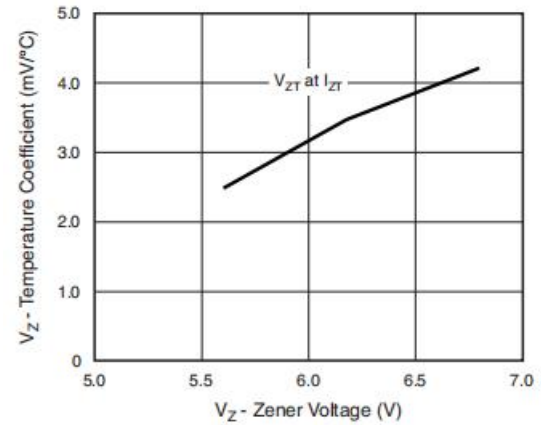


Figure 4: Temperature Coefficient

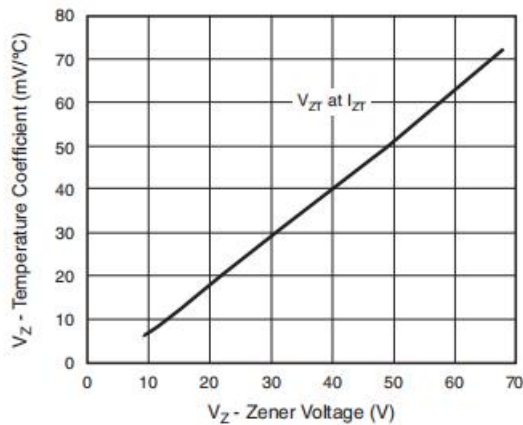


Figure 5: Temperature Coefficient

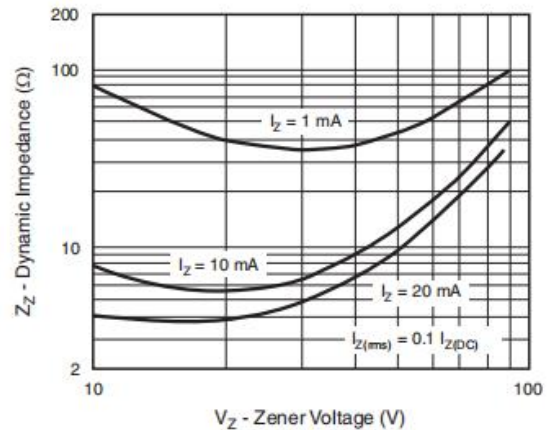
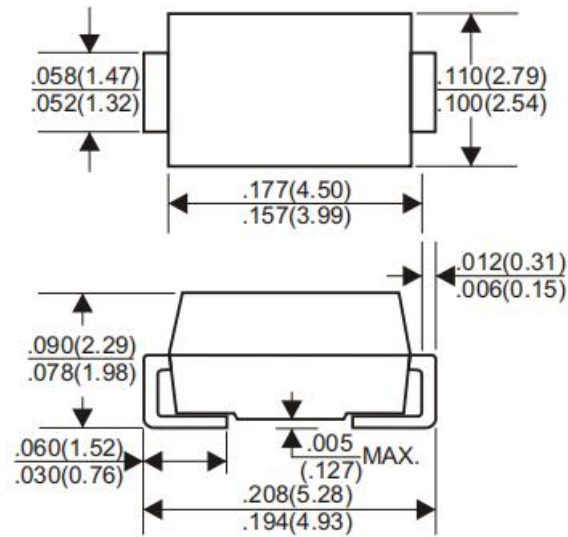


Figure 6: Zener Impedance

■Dimension 外形封装尺寸

DO-214AC(SMA)



Dimensions in inches and (millimeters)