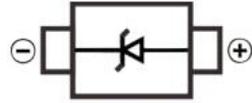


SMB Surface Mounted Zener Diode 表面贴装稳压二极管

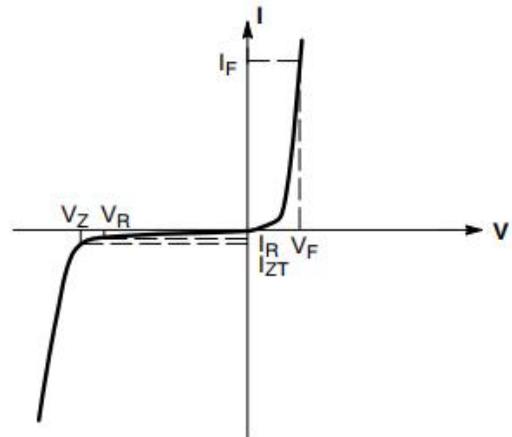
■SMB(DO-214AA) Internal Configuration 内部结构



■Features 特点

Characteristic 特性参数	Symbol 符号	Max 最大值	Unit 单位
Power dissipation 耗散功率	$P_D(T_A=25^\circ\text{C})$	550	mW
Power dissipation 耗散功率	$P_D(T_L=75^\circ\text{C})$	3000	mW
Forward Voltage 正向电压	$V_F(@ I_F=200\text{mA})$	1.2	V
Reverse Voltage 反向电压	V_Z	3.3-250	V
Thermal Resistance J-L 结到管脚热阻	$R_{\theta JL}$	41.6	$^\circ\text{C}/\text{W}$
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	226	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	150 $^\circ\text{C}$, -55to+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 $^\circ\text{C}$)

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)
	Nom.	Min.	Max.					
SMB3Z3.3A	3.3	3.10	3.50	75	10	100	1	285
SMB3Z3.6A	3.6	3.40	3.80	69	10	100	1	263
SMB3Z3.9A	3.9	3.70	4.10	64	9.0	50	1	243
SMB3Z4.3A	4.3	4.06	4.56	58	9.0	25	1	219
SMB3Z4.7A	4.7	4.50	4.93	53	8.0	10	1	203
SMB3Z5.1A	5.1	4.84	5.36	49	7.0	10	1	186
SMB3Z5.6A	5.6	5.32	5.92	45	5.0	10	2	170
SMB3Z6.2A	6.2	5.86	6.51	41	2.0	10	3	154
SMB3Z6.8A	6.8	6.46	7.18	37	3.5	10	4	140
SMB3Z7.5A	7.5	7.12	7.88	34	4.0	10	5	127
SMB3Z8.2A	8.2	7.79	8.67	31	4.5	10	6	116
SMB3Z9.1A	9.1	8.60	9.59	28	5.0	10	7	104
SMB3Z10A	10	9.50	10.5	25	7.0	10	7	95
SMB3Z11A	11	10.4	11.6	23	8.0	5	8	86
SMB3Z12A	12	11.4	12.6	21	9.0	5	9	79
SMB3Z13A	13	12.4	14.1	19	10	5	10	71
SMB3Z15A	15	13.8	15.8	17	14	5	11	63
SMB3Z16A	16	15.2	17.1	16	16	5	12	58
SMB3Z17A	17	16.2	17.9	15	18	5	12	55
SMB3Z18A	18	16.8	19.2	14	20	5	13	52
SMB3Z19A	19	20.0	21.0	13	21	5	14	49
SMB3Z20A	20	19.0	21.2	13	22	5	15	47
SMB3Z22A	22	20.8	23.3	12	23	5	17	43
SMB3Z24A	24	22.8	26.0	11	25	5	18	38
SMB3Z27A	27	25.3	28.9	9.5	35	5	21	35
SMB3Z30A	30	28.2	32.0	8.5	40	5	23	31
SMB3Z33A	33	31.3	34.9	7.5	45	5	25	28
SMB3Z36A	36	34.2	37.9	7.0	50	5	27	26
SMB3Z39A	39	37.2	41.5	6.5	60	5	30	24
SMB3Z43A	43	40.9	45.6	6.0	70	1	32	22
SMB3Z47A	47	44.9	49.8	5.5	80	1	35	20
SMB3Z51A	51	48.6	54.0	5.0	95	1	38	18
SMB3Z56A	56	53.6	58.8	4.5	110	1	42	17
SMB3Z62A	62	58.9	65.6	4.0	125	1	47	15
SMB3Z68A	68	64.6	71.7	3.7	150	1	52	14
SMB3Z75A	75	71.2	78.8	3.3	175	1	56	12
SMB3Z82A	82	77.9	87.0	3.0	200	1	62	11
SMB3Z91A	91	86.0	96.0	2.8	250	1	69	10
SMB3Z100A	100	95.0	105	2.5	350	1	76	9.5
SMB3Z110A	110	104	116	2.3	450	1	84	8.6
SMB3Z120A	120	114	127	2.0	550	1	91	7.8
SMB3Z130A	130	125	142	1.9	700	1	100	7.0
SMB3Z140A	140	133	147	1.8	800	1	105	6.6
SMB3Z150A	150	140	157	1.7	900	1	110	6.3
SMB3Z170A	170	155	172	1.6	1000	1	120	5.8
SMB3Z180A	180	170	191	1.4	1100	1	135	5.2
SMB3Z190A	190	200	210	1.3	1150	1	142	4.9
SMB3Z200A	200	189	211	1.2	1200	1	150	4.7
SMB3Z210A	210	200	220	1.1	1300	1	157	4.5
SMB3Z220A	220	209	230	1	1600	1	156	4.3
SMB3Z230A	230	212	242	1	2000	1	155	4.1
SMB3Z240A	240	228	252	1	2500	1	153	3.9
SMB3Z250A	250	237	263	1	3000	1	160	3.7

■ Typical Characteristic Curve 典型特性曲线

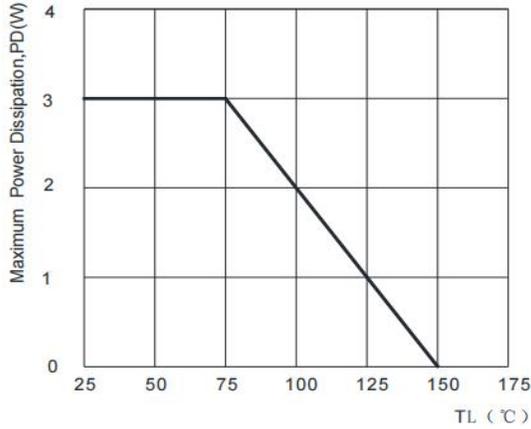


Figure 1: Power Derating Curve

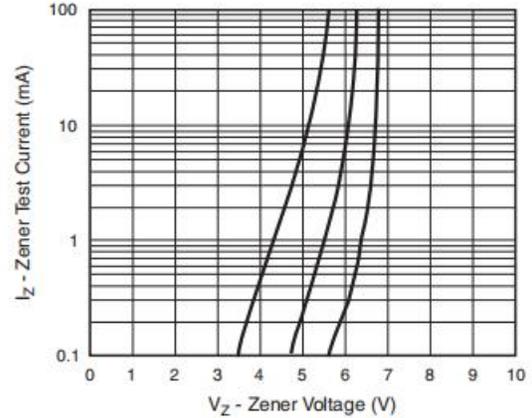


Figure 2: Zener Breakdown Characteristics

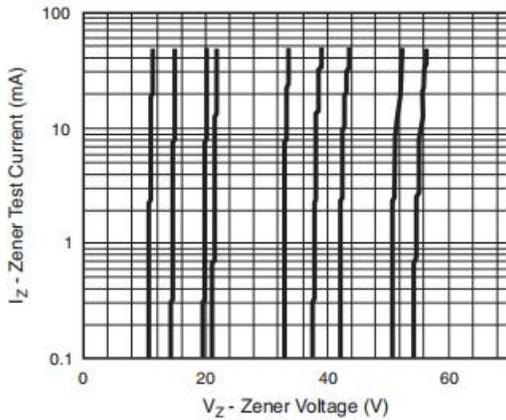


Figure 3: Zener Breakdown Characteristics

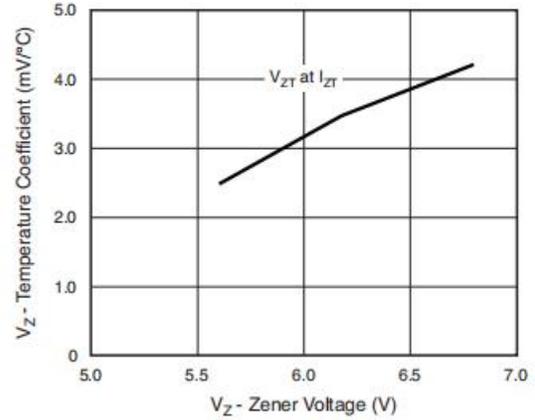


Figure 4: Temperature Coefficient

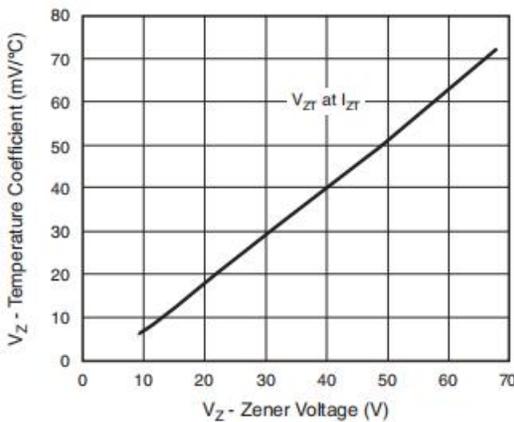


Figure 5: Temperature Coefficient

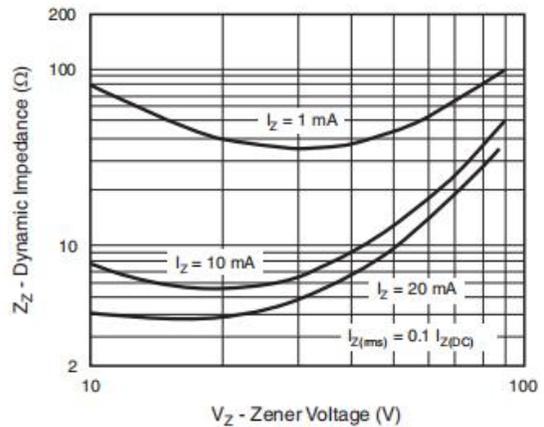
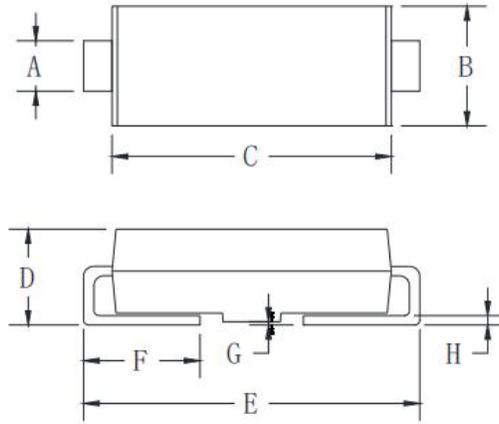


Figure 6: Zener Impedance

■Dimension 外形封装尺寸

DO-214AA(SMB)



Dimensions in millimeters

DO-214AA(SMB)		
Dim	Min	Max
A	1.85	2.15
B	3.30	3.94
C	4.05	4.75
D	1.99	2.61
E	5.21	5.59
F	0.90	1.41
G	0.10	0.20
H	0.15	0.31