



稳压（齐纳）二极管 Zener Diodes

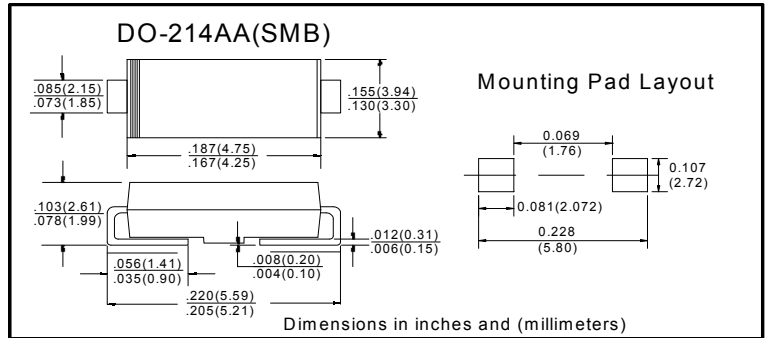
■特征 Features

- P_{tot} 2.0W
- V_z 6.2V-330V

■用途 Applications

- 稳定电压用 Stabilizing Voltage

■外形尺寸和印记 Outline Dimensions and Mark



■极限值（绝对最大额定值）

Limiting Values (Absolute Maximum Rating)

参数名称 Item	符号 Symbol	单位 Unit	条件 Conditions	最大值 Max
损耗功率 Power dissipation	P_{tot}	W	$T_L=75^\circ\text{C}$	2.0
齐纳电流 Zener current	I_z	mA		P_V / V_z
最大结温 Maximum junction temperature	T_j	$^\circ\text{C}$		150
存储温度范围 Storage temperature range	T_{stg}	$^\circ\text{C}$		-65 to +150

■电特性（ $T_a=25^\circ\text{C}$ 除非另有规定）

Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

参数名称 Item	符号 Symbol	单位 Unit	条件 Conditions	最大值 Max
典型热阻 Thermal resistance	$R_{\theta JA}$	$^\circ\text{C}/\text{W}$	结和环境之间 Between junction and ambient	75
正向电压 Forward voltage	V_F	V	$I_F=200\text{mA}$	1.5

■ 电性参数 (T_A=25℃ 除非另有规定)

Electrical Characteristics (T_A=25℃ unless otherwise noted)

产品型号 Part Number	印字代码 Marking Code	额定齐纳电压	测试电流	最大动态阻抗			最大反向漏电流		最大浪涌电流
		Nominal Zener voltage	Test current	Maximum dynamic impedance resistance			Maximum reverse leakage current		Max Surge current
		V _Z ⁽¹⁾ at I _{ZT}	I _{ZT}	Z _{ZT} at I _{ZT}	Z _{ZK} at I _{ZK}	I _{ZK}	IR	Test voltage V _R	I _{RM} ⁽²⁾
		V	mA	Ω	Ω	mA	μA	V	mA
SMB2EZ6.2	2A0	6.2	80.5	1.5	700	1.00	5.0	3.0	292.0
SMB2EZ6.8	2A1	6.8	73.5	2.0	700	1.00	5.0	4.0	266.0
SMB2EZ7.5	2A2	7.5	66.5	2.0	700	0.50	5.0	5.0	242.0
SMB2EZ8.2	2A3	8.3	61.0	2.3	700	0.50	5.0	6.0	220.0
SMB2EZ9.1	2A4	9.1	55.0	2.5	700	0.50	3.0	7.0	200.0
SMB2EZ10	2A5	10.0	50.0	3.5	700	0.25	3.0	7.6	182.0
SMB2EZ11	2A6	11.0	45.5	4.0	700	0.25	1.0	8.4	166.0
SMB2EZ12	2A7	12.0	41.5	4.5	700	0.25	1.0	9.1	152.0
SMB2EZ13	2A8	13.0	38.5	5.0	700	0.25	0.5	9.9	138.0
SMB2EZ14	2A9	14.0	35.7	5.5	700	0.25	0.5	10.6	130.0
SMB2EZ15	2B0	15.0	33.4	7.0	700	0.25	0.5	11.4	122.0
SMB2EZ16	2B1	16.0	31.2	8.0	700	0.25	0.5	12.2	114.0
SMB2EZ17	2B2	17.0	29.4	9.0	750	0.25	0.5	13.0	107.0
SMB2EZ18	2B3	18.0	27.8	10.0	750	0.25	0.5	13.7	100.0
SMB2EZ19	2B4	19.0	26.3	11.0	750	0.25	0.5	14.4	95.0
SMB2EZ20	2B5	20.0	25.0	11.0	750	0.25	0.5	15.2	90.0
SMB2EZ22	2B6	22.0	22.8	12.0	750	0.25	0.5	16.7	82.0
SMB2EZ24	2B7	24.0	20.8	13.0	750	0.25	0.5	18.2	76.0
SMB2EZ27	2B8	27.0	18.5	18.0	750	0.25	0.5	20.6	68.0
SMB2EZ30	2B9	30.0	16.6	20.0	1000	0.25	0.5	22.5	60.0
SMB2EZ33	2C0	33.0	15.1	23.0	1000	0.25	0.5	25.1	55.0
SMB2EZ36	2C1	36.0	13.9	25.0	1000	0.25	0.5	27.4	50.0
SMB2EZ39	2C2	39.0	12.8	30.0	1000	0.25	0.5	29.7	47.0
SMB2EZ43	2C3	43.0	11.6	35.0	1000	0.25	0.5	32.7	43.0
SMB2EZ47	2C4	47.0	10.6	40.0	1500	0.25	0.5	35.8	39.0
SMB2EZ51	2C5	51.0	9.8	48.0	1500	0.25	0.5	38.8	36.0
SMB2EZ56	2C6	56.0	9.0	55.0	2000	0.25	0.5	42.6	32.0
SMB2EZ62	2C7	62.0	8.1	60.0	2000	0.25	0.5	47.1	29.0
SMB2EZ68	2C8	68.0	7.4	75.0	2000	0.25	0.5	51.7	27.0
SMB2EZ75	2C9	75.0	6.7	90.0	2000	0.25	0.5	56.0	24.0
SMB2EZ82	2F0	82.0	6.1	100.0	3000	0.25	0.5	62.2	22.0
SMB2EZ91	2F1	91.0	5.5	125.0	3000	0.25	0.5	69.2	20.0
SMB2EZ100	2F2	100.0	5.0	175.0	3000	0.25	0.5	76.0	18.0
SMB2EZ110	2F3	110.0	4.5	250.0	4000	0.25	0.5	83.6	17.0
SMB2EZ120	2F4	120.0	4.2	325.0	4500	0.25	0.5	91.2	15.0
SMB2EZ130	2F5	130.0	3.8	400.0	5000	0.25	0.5	98.8	14.0
SMB2EZ140	2F6	140.0	3.6	500.0	5500	0.25	0.5	106.4	13.0
SMB2EZ150	2F7	150.0	3.3	575.0	6000	0.25	0.5	114.0	12.0
SMB2EZ160	2F8	160.0	3.1	650.0	6500	0.25	0.5	121.6	11.0
SMB2EZ170	2F9	170.0	2.9	675.0	7000	0.25	0.5	130.4	11.0
SMB2EZ180	2G1	180.0	2.8	725.0	7000	0.25	0.5	136.8	10.0



■ 电性参数 (T_A=25°C 除非另有规定)

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

产品型号 Part Number	印字代码 Marking Code	额定齐纳电压 Nominal Zener voltage	测试电流 Test current	最大动态阻抗 Maximum dynamic impedance resistance			最大反向漏电流 Maximum reverse leakage current		最大浪涌电流 Max Surge current
		V _Z ⁽¹⁾ at I _{ZT}	I _{ZT}	Z _{ZT} at I _{ZT}	Z _{ZK} at I _{ZK}	I _{ZK}	IR	Test voltage V _R	I _{RM} ⁽²⁾
		V	mA	Ω	Ω	mA	μA	V	mA
SMB2EZ190	2G2	190.0	2.6	825.0	8000	0.25	0.5	144.8	10.0
SMB2EZ200	2G3	200.0	2.5	1900.0	9990	0.25	0.5	152.0	9.0
SMB2EZ220	2G4	220.0	2.0	2000.0	8500	0.25	0.5	167.0	8.0
SMB2EZ270	2G5	270.0	1.6	2200.0	8500	0.25	0.5	205.0	6.7
SMB2EZ300	2G6	300.0	1.5	2200.0	9000	0.25	0.5	228.0	5.9
SMB2EZ330	2G7	330.0	1.4	2300.0	9000	0.25	0.5	250.0	5.4

备注: Notes:

(1) 基于直流测试热平衡状态

Based on dc-measurement at thermal equilibrium

(2) 浪涌电流是不重复的, 为8.3毫秒脉宽方形或等效正弦波叠加在I_{ZT}的每种JEDEC方法

Surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC method



■特性曲线（典型） Characteristics(Typical)

图1: 最大连续功率损耗

FIG1: Maximum Continuous Power Dissipation

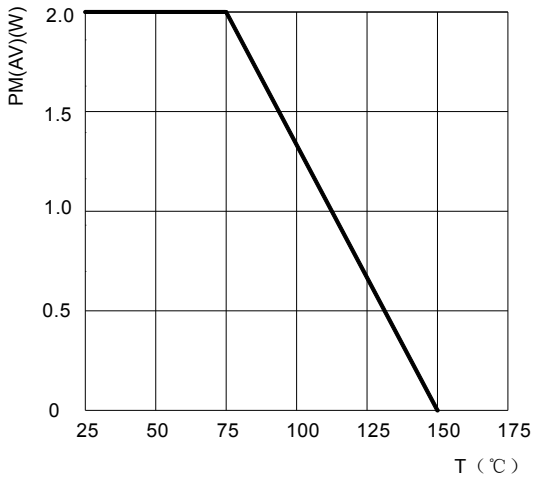


图2: 典型齐纳阻抗

FIG2: Typical Zener Impedance

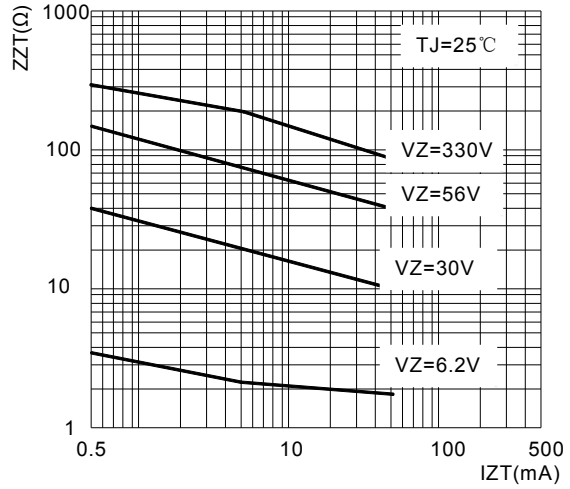


图3: 典型温度系数

FIG3: Typical Temperature Coefficients

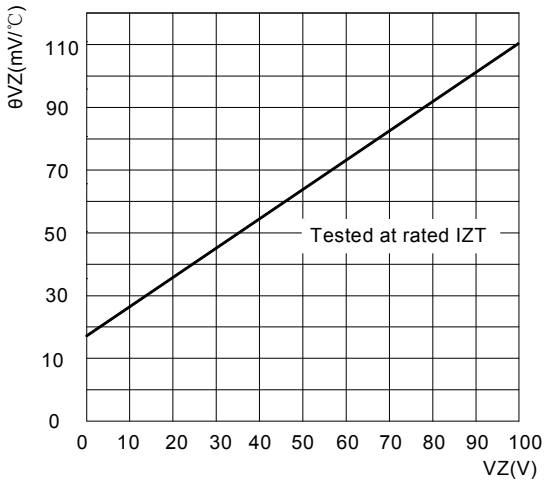


图4: 典型瞬态正向特性

FIG4: Typical Instantaneous Forward Characteristics

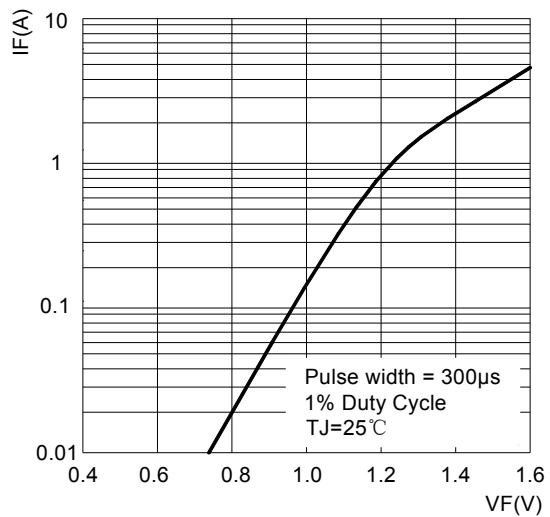


图5: 典型反向特性

FIG5: Typical Reverse Characteristics

