

Zener Diodes

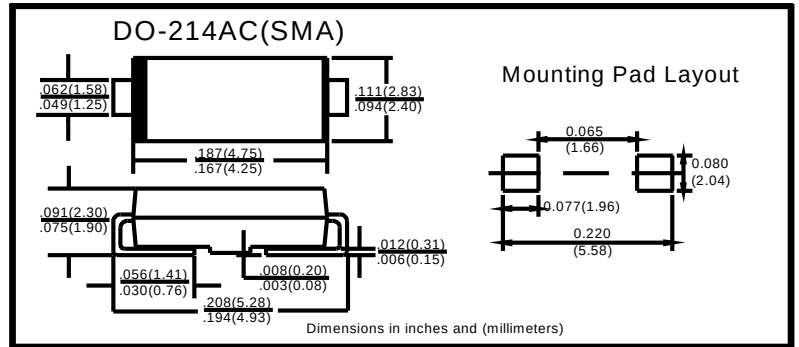
■特征 Features

P_{tot} 1.0W
 V_Z 3.3V-100V

■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	$T_L=75^{\circ}\text{C}$	1.0
齐纳电流 Zener current	I_Z	mA		P_V / V_Z
最大结温 Maximum junction temperature	T_j			150
存储温度范围 Storage temperature range	T_{stg}			-65 to +150

■电特性（ T_a 除非另有规定）

Electrical Characteristics (T_a less 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	$R_{\theta JA}$	/W	结和环境之间 Between junction and ambient	75
正向电压 Forward voltage	V_F	V	$I_F=200\text{mA}$	1.2

■ 电性参数 (T_A 除非另有规定)
Electrical Characteristics (T_A)

产品型号 Part Number	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
SMA4728A	3.3	76	10	400	1	100	1	1380
SMA4729A	3.6	69	10	400	1	100	1	1260
SMA4730A	3.9	64	9	400	1	50	1	1190
SMA4731A	4.3	58	9	400	1	10	1	1070
SMA4732A	4.7	53	8	500	1	10	1	970
SMA4733A	5.1	49	7	550	1	10	1	890
SMA4734A	5.6	45	5	600	1	10	2	810
SMA4735A	6.2	41	2	700	1	10	3	730
SMA4736A	6.8	37	3.5	700	1	10	4	660
SMA4737A	7.5	34	4	700	0.5	10	5	605
SMA4738A	8.2	31	4.5	700	0.5	10	6	550
SMA4739A	9.1	28	5	700	0.5	10	7	500
SMA4740A	10	25	7	700	0.25	10	7.6	454
SMA4741A	11	23	8	700	0.25	5	8.4	414
SMA4742A	12	21	9	700	0.25	5	9.1	380
SMA4743A	13	19	10	700	0.25	5	9.9	344
SMA4744A	15	17	14	700	0.25	5	11.4	304
SMA4745A	16	15.5	16	700	0.25	5	12.2	285
SMA4746A	18	14	20	750	0.25	5	13.7	250
SMA4747A	20	12.5	22	750	0.25	5	15.2	225
SMA4748A	22	11.5	23	750	0.25	5	16.7	205
SMA4749A	24	10.5	25	750	0.25	5	18.2	190
SMA4750A	27	9.5	35	750	0.25	5	20.6	170
SMA4751A	30	8.5	40	1000	0.25	5	22.8	150
SMA4752A	33	7.5	45	1000	0.25	5	25.1	135
SMA4753A	36	7	50	1000	0.25	5	27.4	125
SMA4754A	39	6.5	60	1000	0.25	5	29.7	115
SMA4755A	43	6	70	1500	0.25	5	32.7	110
SMA4756A	47	5.5	80	1500	0.25	5	35.8	95
SMA4757A	51	5	95	1500	0.25	5	38.8	90
SMA4758A	56	4.5	110	2000	0.25	5	42.6	80
SMA4759A	62	4	125	2000	0.25	5	47.1	70
SMA4760A	68	3.7	150	2000	0.25	5	51.7	65
SMA4761A	75	3.3	175	2000	0.25	5	56	60
SMA4762A	82	3.0	200	3000	0.25	5	62.2	55
SMA4763A	91	2.8	250	3000	0.25	5	69.2	50
SMA4764A	100	2.5	350	3000	0.25	5	76.0	45

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

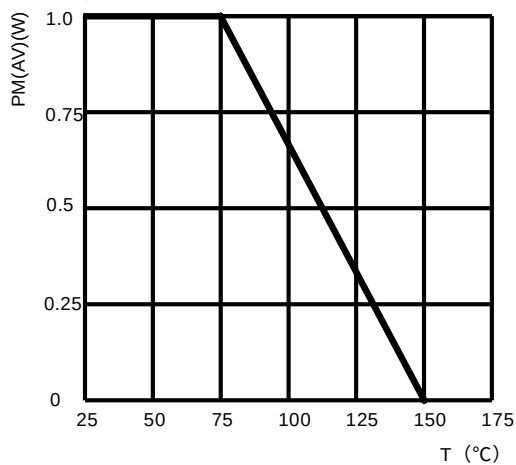


图2：典型齐纳阻抗

FIG2: Typical Zener Impedance

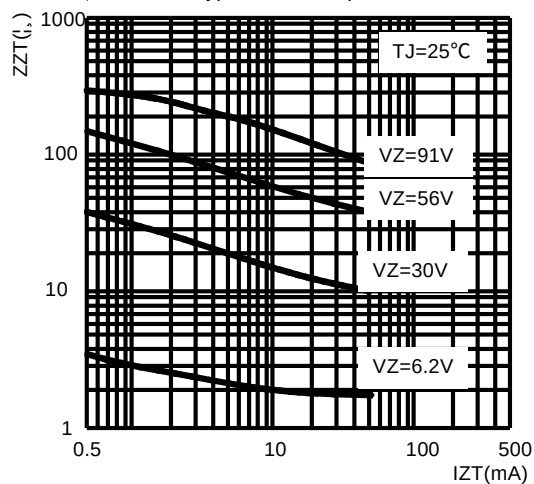


图3：典型温度系数

FIG3: Typical Temperature Coefficients

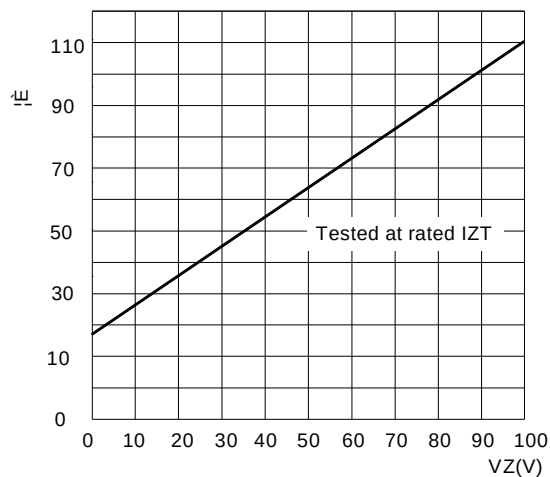


图4：SMA4763A的典型瞬态正向特性

FIG4: Typical Instantaneous Forward Characteristics for SMA4763A

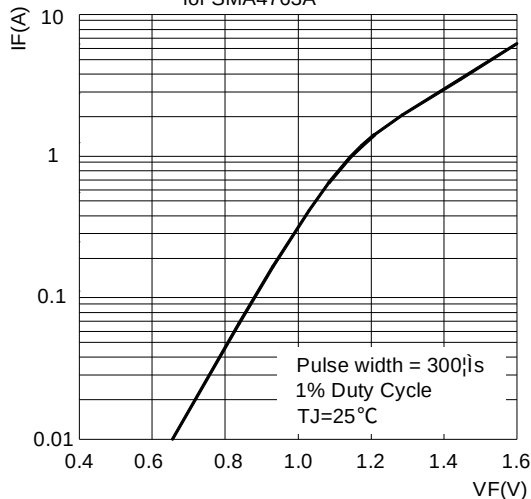


图5：典型反向特性

FIG5: Typical Reverse Characteristics

