

BR1SMA4728AQ~BR1SMA4762AQ

Rev.A Dec.-2023

描述 / Descriptions

稳压二极管，SMA 封装。

Silicon Planar Zener Diodes, SMA package.

特征 / Features

总功耗：最大不超过 1.0W，齐纳反向电压宽：3.3~82V，小型塑料包装适合表面安装设计，符合 AEC-Q101 标准高可靠性要求，无卤产品。

Total power dissipation: Max. 1.0W, Wide zener reverse voltage range 3.3V to 82V, Small plastic package suitable for surface mounted design, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

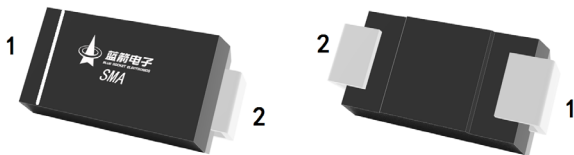
1W 功耗，自动贴片组装，满足汽车应用的严格要求。

1W power dissipation, automated assembly processes, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit

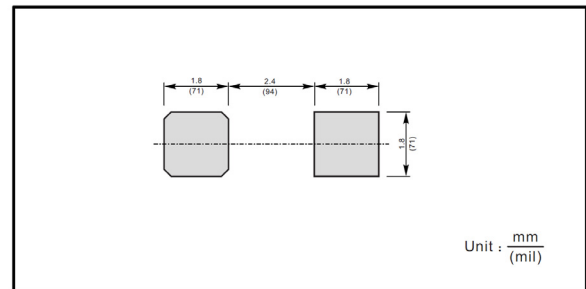


引脚排列 / Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



印章代码 / Marking

见印章说明。

See Marking Instructions.

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DATA SHEET

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

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
power dissipation at TL=75°C	P _D	1.0	W
Forward Voltage at I _F = 200 mA	V _F	1.2	V
Junction Temperature Range	T _J	- 55 to + 150	°C
Storage Temperature Range	T _{STG}	- 55 to + 150	°C

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

Type (note1)	Marking (note1)	Zener Voltage Range (note2)				Dynamic Impedance	Reverse Current		Admissible Zener Current
		V _{ZT} (at I _{ZT})			at I _{ZT}		I _R	at V _R	
		Min(V)	Nom(V)	Max(V)	(mA)	Z _{ZT} (at I _{ZT}) Max (Ω)	Max(μA)	(V)	I _{ZM} (mA)
BR1SMA4728AQ	728AQ	3.10	3.3	3.50	75	10	100	1	285
BR1SMA4729AQ	729AQ	3.40	3.6	3.80	69	10	100	1	263
BR1SMA4730AQ	730AQ	3.70	3.9	4.10	64	9.0	50	1	243
BR1SMA4731AQ	731AQ	4.06	4.3	4.56	58	9.0	25	1	219
BR1SMA4732AQ	732AQ	4.50	4.7	4.93	53	8.0	10	1	203
BR1SMA4733AQ	733AQ	4.84	5.1	5.36	49	7.0	10	1	186
BR1SMA4734AQ	734AQ	5.32	5.6	5.92	45	5.0	10	2	170
BR1SMA4735AQ	735AQ	5.86	6.2	6.51	41	2.0	10	3	154
BR1SMA4736AQ	736AQ	6.46	6.8	7.18	37	3.5	10	4	140
BR1SMA4737AQ	737AQ	7.12	7.5	7.88	34	4.0	10	5	127
BR1SMA4738AQ	738AQ	7.79	8.2	8.67	31	4.5	10	6	116
BR1SMA4739AQ	739AQ	8.60	9.1	9.59	28	5.0	10	7	104
BR1SMA4740AQ	740AQ	9.50	10	10.5	25	7.0	10	7	95
BR1SMA4741AQ	741AQ	10.4	11	11.6	23	8.0	5	8	86
BR1SMA4742AQ	742AQ	11.4	12	12.6	21	9.0	5	9	79
BR1SMA4743AQ	743AQ	12.4	13	14.1	19	10	5	10	71
BR1SMA4744AQ	744AQ	13.8	15	15.8	17	14	5	11	63
BR1SMA4745AQ	745AQ	15.2	16	17.1	16	16	5	12	58
BR1SMA4746AQ	746AQ	16.8	18	19.2	14	20	5	13	52
BR1SMA4747AQ	747AQ	19.0	20	21.2	13	22	5	15	47

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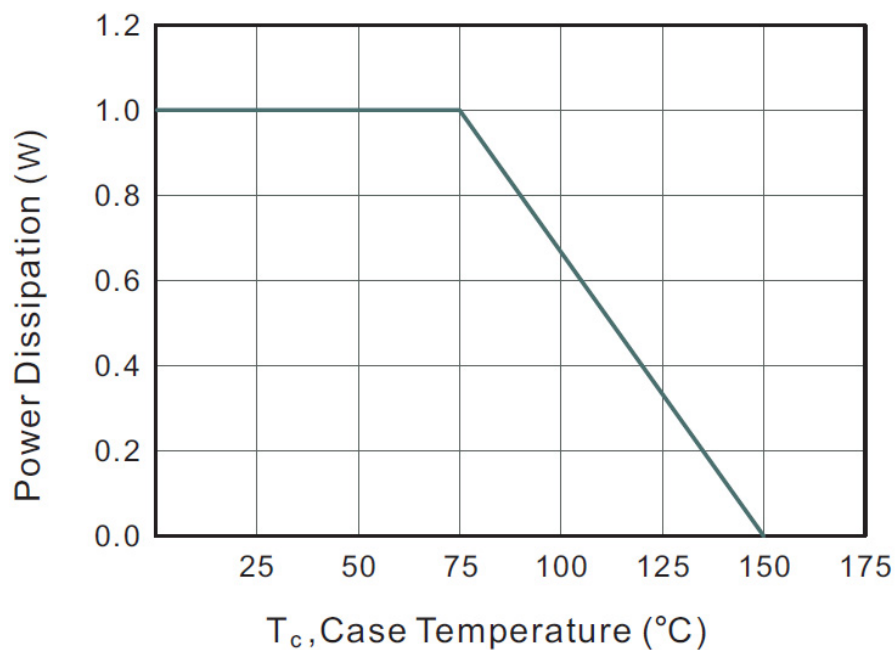
电性能参数 / Electrical Characteristics(Ta=25°C)

Type (note1)	Marking (note1)	Zener Voltage Range(note2)				Dynamic Impedance	Reverse Current		Admissible Zener Current
		V _{ZT} (at I _{ZT})			at I _{ZT}		I _R	at V _R	
		Min(V)	Nom(V)	Max(V)	(mA)	Z _{ZT} (at I _{ZT}) Max (Ω)	Max(μA)	(V)	I _{ZM} (mA)
BR1SMA4748AQ	748AQ	20.8	22	23.3	12	23	5	17	43
BR1SMA4749AQ	749AQ	22.8	24	26.0	11	25	5	18	38
BR1SMA4750AQ	750AQ	25.3	27	28.9	9.5	35	5	21	35
BR1SMA4751AQ	751AQ	28.2	30	32.0	8.5	40	5	23	31
BR1SMA4752AQ	752AQ	31.3	33	34.9	7.5	45	5	25	28
BR1SMA4753AQ	753AQ	34.2	36	37.9	7.0	50	5	27	26
BR1SMA4754AQ	754AQ	37.2	39	41.5	6.5	60	5	30	24
BR1SMA4755AQ	755AQ	40.9	43	45.6	6.0	70	1	32	22
BR1SMA4756AQ	756AQ	44.9	47	49.8	5.5	80	1	35	20
BR1SMA4757AQ	757AQ	48.6	51	54.0	5.0	95	1	38	18
BR1SMA4758AQ	758AQ	53.6	56	58.8	4.5	110	1	42	17
BR1SMA4759AQ	759AQ	58.9	62	65.6	4.0	125	1	47	15
BR1SMA4760AQ	760AQ	64.6	68	71.7	3.7	150	1	52	14
BR1SMA4761AQ	761AQ	71.2	75	78.8	3.3	175	1	56	12
BR1SMA4762AQ	762AQ	77.9	82	87.0	3.0	200	1	62	11

1) V_{ZT} is tested with pulses (20 ms)

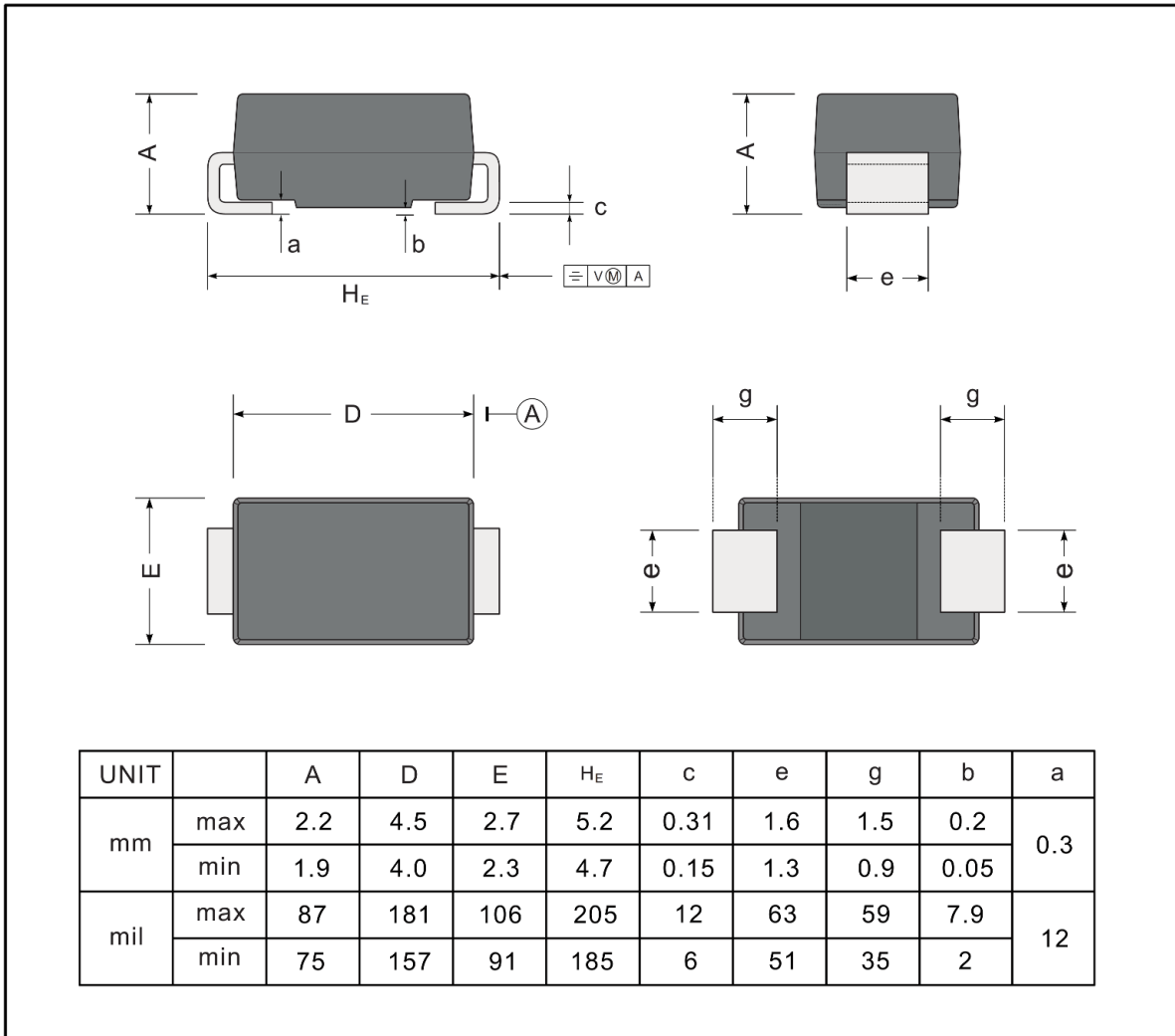
电参数曲线图 / Electrical Characteristic Curve

Fig.1 Maximum Continuous Power Derating

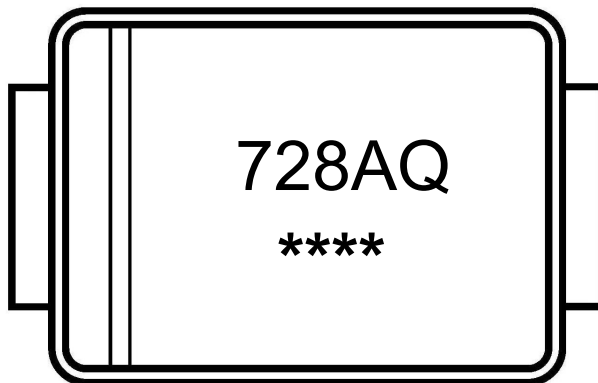


外形尺寸图 / Package Dimensions

SMA



印章说明 / Marking Instructions



说明：

728A : 为型号代码

Q : 为汽车无卤产品标识

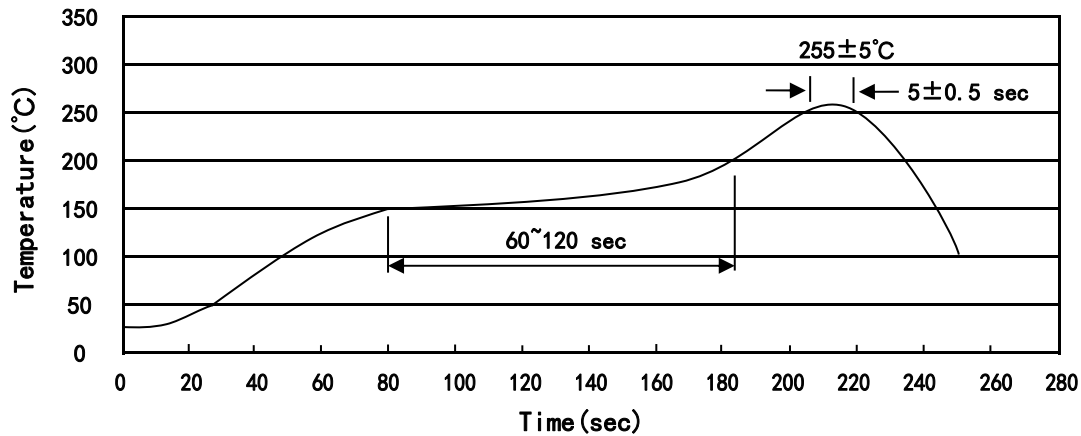
**** : 为生产批号代码，随生产批号变化

Note:

728A : Product Type Code

Q: Automobile halogen-free product Code

**** : Lot No. Code, code change with Lot No

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 150~200°C，时间 60~120sec;
- 2、峰值温度 255±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:150~200°C, Time:60~120sec.
- 2.Peak Temp.:255±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 ³)		
	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
SMA	5,000	2	10,000	7	70,000	13" ×12	336×336×40	380×335×366

使用说明 / Notices