

BVE400SMJC12A

Description 描述

TVS diodes can be used in a wide range of applications which like consumer electronic products, automotive industries, telecommunications and intelligent control systems.

TVS 二极管可广泛应用于消费电子产品、汽车工业、电信和智能控制系统等领域。

Features

特性

- Low profile package
小体积包装
- Ideal for automated placement
包装适合自动贴片
- Excellent clamping capability
优秀的电压钳位能力
- Low incremental surge resistance
低增量浪涌能力
- 400W peak pulse power capability with a 10/1000 μ s waveform
10/1000us 时峰值脉冲功率 400W
- Hi reliability application and automotive grade
AEC-Q101 qualified
高可靠性应用和汽车级 AEC-Q101 合格



DO-214AC(SMA)



Applications

应用

- Automotive industries
汽车工业
- Surge resistance protection
浪涌保护

Part Number 型号	$V_{RWM}[V]$ 反向隔离电压	$P_{PPM}[W](10/1000us)$ 峰值脉冲功率	$T_{Jmax}[^{\circ}C]$ 最高结温	Marking 标记	Package 封装
BVE400SMJC12A	12	400	150	04C12XAX	DO-214AC(SMA)

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Maximum Rated Values

最大额定参数

Parameter 参数	Symbol 符号	Value 值	Unit 单位
Peak pulse power dissipation at 10/1000μs 10/1000μs 时脉冲峰值功率	P _{PP}	400	W
Power dissipation, on infinite heat sink at TL=75°C 在 TL=75°C 的无限散热片上功耗	P _D	3.5	W
Peak forward surge current at 8.3ms single half sine wave 8.3ms 底宽半正弦波单脉冲峰值正向浪涌电流	I _{FSM}	40	A
Operating junction temperature 工作结温	T _J	-55 to +150	°C
Storage temperature 储存温度	T _{STG}	-55 to +150	°C
Thermal Resistance, Junction to Lead 结-管脚热阻	R _{θJL}	21	°C/W
Thermal Resistance, Junction to Ambient 结-环境热阻	R _{θJA}	67	°C/W

Electrical Characteristic at (T_A = 25°C , unless otherwise specified)

电学特性 (T_A=25°C, 除非特别声明)

Parameter 参数	Symbol 符号	Conditions 条件	Value 值			Unit 单位
			Min. 最小值	Typ. 典型值	Max. 最大值	
Reverse Stand-Off Voltage 反向隔离电压	V _{RWM}	-	-	-	12	V
Reverse Breakdown Voltage 反向击穿电压	V _{BR}	I _T =1mA	13.3	-	14.7	V
Reverse Leakage Current 反向漏电流	I _R	V _{RWM} =12V	-	-	1	μA
Peak Pulse Current 峰值脉冲电流	I _{PP}	t _p =10/1000μs	-	-	20.1	A
Clamping Voltage 钳位电压	V _C	I _{PP} =20.1A, t _p =10/1000μs	-	-	19.9	V
Forward Voltage 正向压降	V _F	I _F =1A	-	-	1.5	V

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ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$, unless otherwise specified)

特性曲线 ($T_A=25^\circ\text{C}$, 除非特别声明)

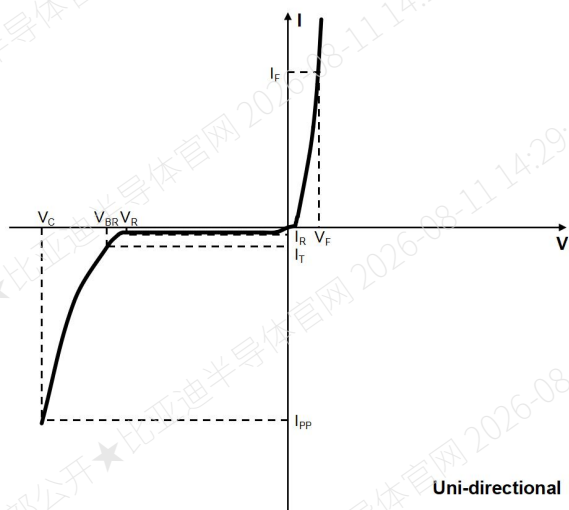


Fig.1 I-V Curve Characteristics

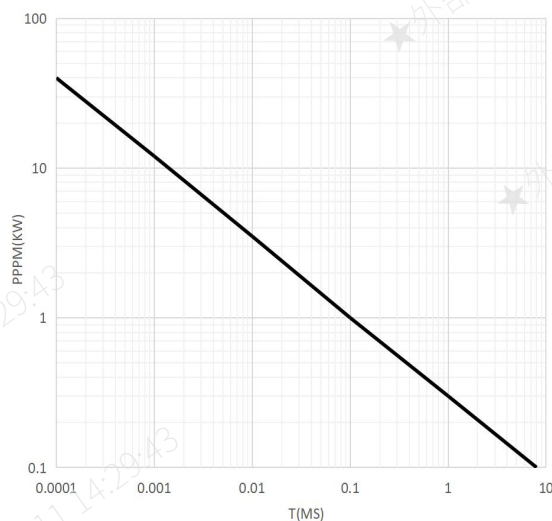


Fig.2 Peak Pulse Power Rating

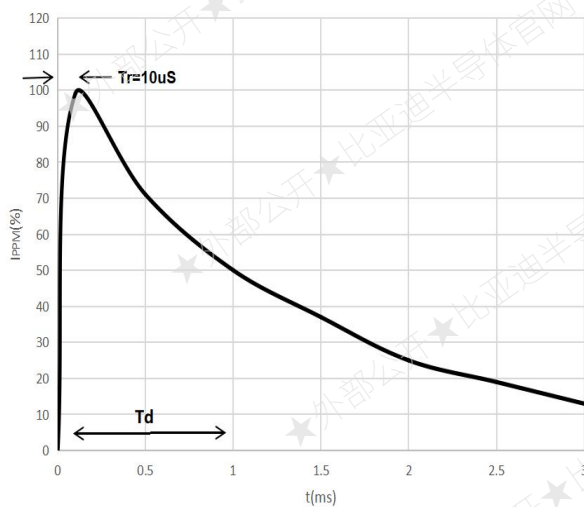


Fig.3 Clamping Power Pulse Waveform

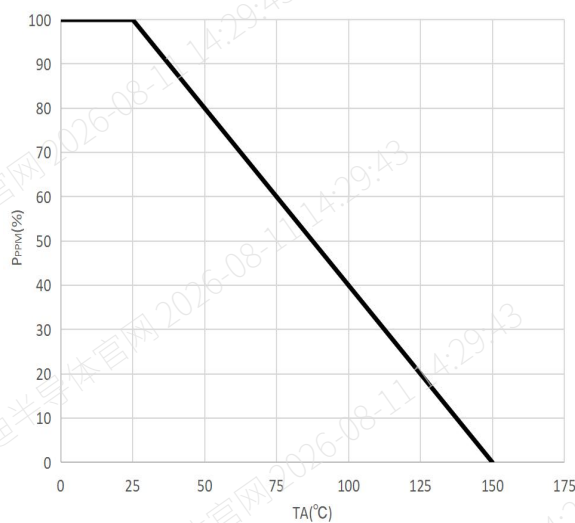
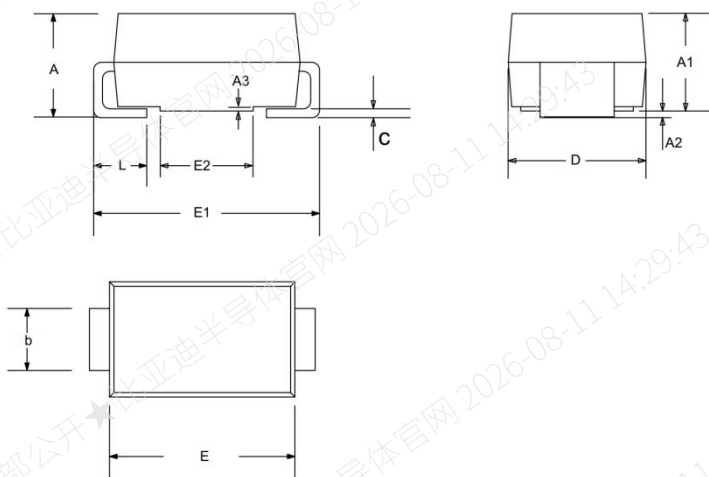


Fig.4 Pulse Derating Curve

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DO-214AC (SMA) Outline Dimensions

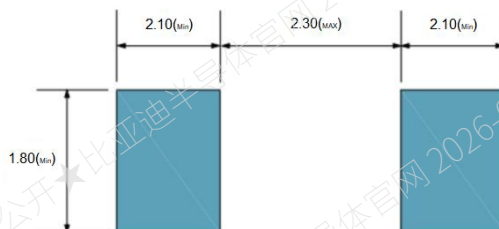
DO-214AC (SMA)外形尺寸



DO-214AC(单位: mm)		
Dim	Min	Max
A	1.95	2.29
A1	1.96	2.15
A2	0.05	0.20
A3	0.05	0.30
b	1.25	1.65
c	0.15	0.36
D	2.40	2.90
E	3.99	4.60
E1	4.80	5.28
E2	1.70	2.20
L	0.78	1.52

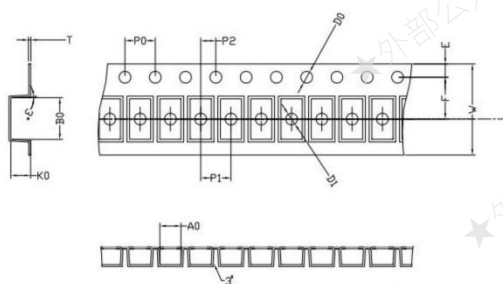
Suggested Pad Layout (Unit: mm)

建议焊盘布局 (单位: mm)



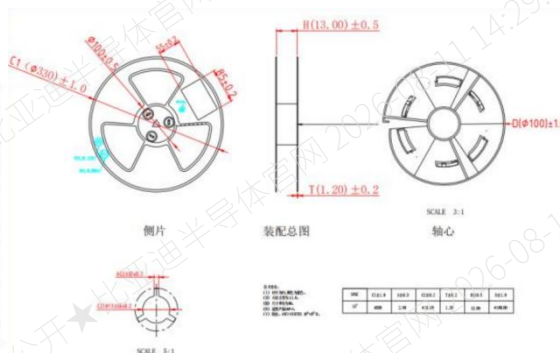
Tape and Reel Specification (Unit: mm)

编带和卷盘规格 (单位: mm)



备注:
每卷载带长度670M

项目	规格	公差
W	12.00	±0.10
E	1.75	±0.10
F	5.50	±0.10
A0	2.79	±0.10
B0	5.33	±0.10
S0	2.36	±0.10
T	0.25	±0.05
D0	1.55	±0.05
B1	1.55	±0.05
P0	4.00	±0.10
P1	4.00	±0.10
P2	2.00	±0.10



Packing 包装	pcs/reel 个/卷盘	reel/inner box 卷盘/内盒	inner box/carton 内盒/外箱	pcs/carton 个/外箱
Reel 卷盘	5000	2	10	100000

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