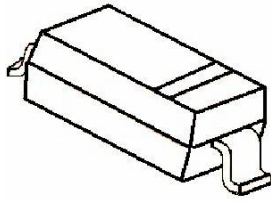


SOD-123



Marking: BAT42W: S7
BAT43W: S8

SOD-123 贴片塑封肖特基二极管 SOD-123 Plastic-Encapsulate Schottky Barrier Diode

特征 Features

- ⌘ 大电流承受能力。High Current Capability
- ⌘ 正向压降低。Low Forward Voltage Drop

机械数据 Mechanical Data

- ⌘ 封装: SOD-123 封装 SOD-123 Small Outline Plastic Package
- ⌘ 极性:色环端为负极 Polarity: Color band denotes cathode end
- ⌘ 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- ⌘ 安装位置: 任意 Mounting Position: Any

极限值和温度特性(TA = 25℃ 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	BAT42W/BAT43W	单位 Unit
最大可重复峰值反向电压 Maximum repetitive peak reverse voltage	VRRM	30	V
最大均方根电压 Maximum RMS voltage	VRMS	21	V
最大直流阻断电压 Maximum DC blocking voltage	VDC	30	V
最大正向平均整流电流 Maximum average forward rectified current	IFM	200	mA
峰值重复正向电流 Repetitive Peak Forward Current @t<1.0s	IFRM	500	mA
峰值正向浪涌电流 8.3ms 单一正弦半波 Peak forward surge current 8.3 ms single half sine-wave	IFSM	4.0	A
典型热阻 Typical thermal resistance	RθJA	200	℃/W
功率消耗 Power Dissipation	PD	500	mW
结温 Junction Temperature	TJ	125	℃
存储温度 Storage temperature range	TSTG	-50-+150	℃

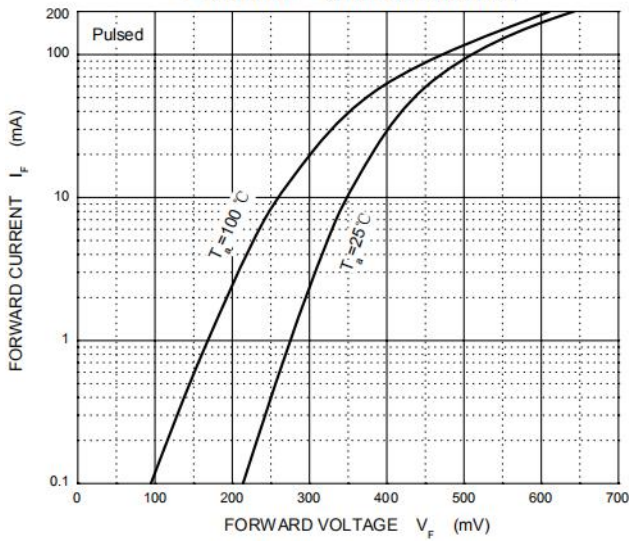
电特性 (TA = 25℃ 除非另有规定)

Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

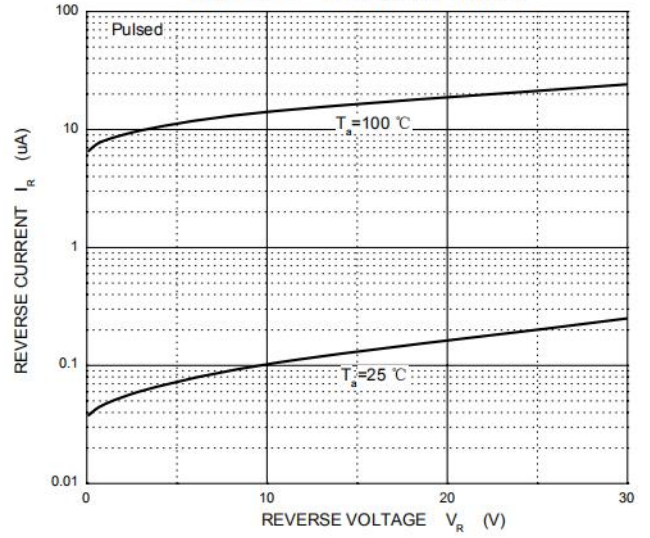
参数 Parameters	符号 Symbol	测试条件 Test conditions	Min	Typ	Max	单位 Unit	
最大正向电压 Maximum forward voltage	BAT42W/BAT43W	VF	IF = 200mA		1.0	V	
	BAT42W	VF	IF = 10mA		0.40		
		VF	IF = 50mA		0.65		
	BAT43W	VF	IF = 2.0mA	0.26			0.33
		VF	IF = 15mA				0.45
最大反向电压 Maximum reverse breakdown voltage	VR	IR=10uA	30			V	
最大反向电流 Maximum reverse current	IR	VR=25V			0.5	uA	
典型结电容 Type junction capacitance	Cj	VR = 1.0V, f = 1MHz			10	pF	
反向恢复时间 Reverse recovery time	trr	IF=IR=10mA Irr=0.1xIR,RL=100Ω			5	nS	

Typical Characteristics

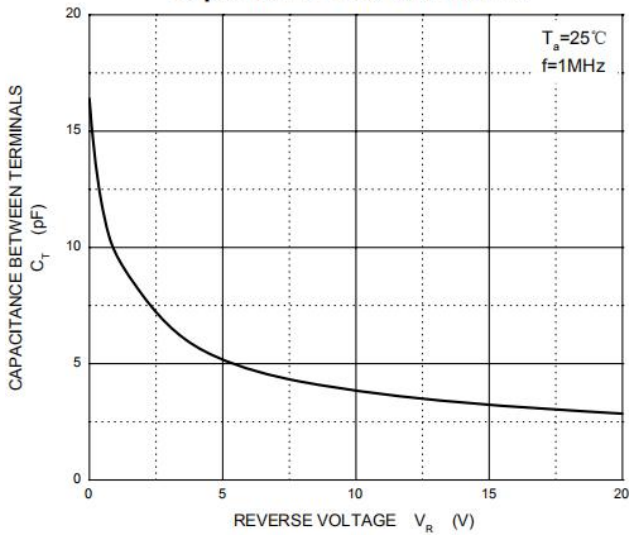
Forward Characteristics



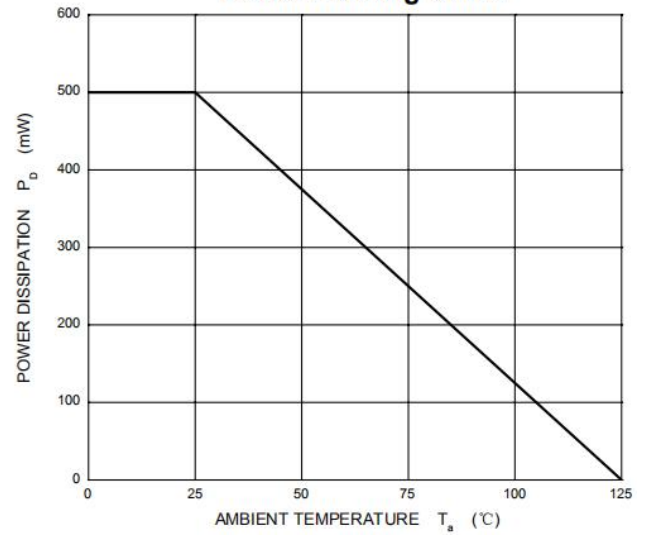
Reverse Characteristics

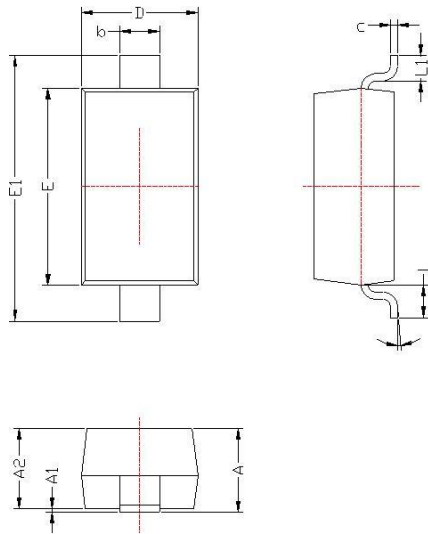


Capacitance Characteristics



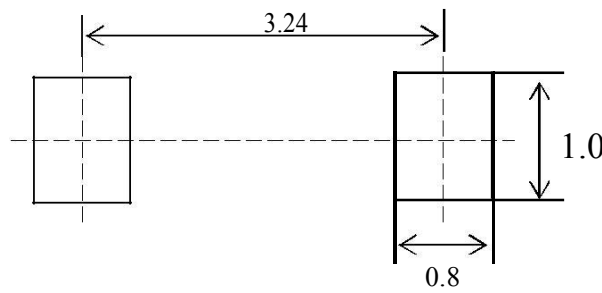
Power Derating Curve





SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°

焊盘设计参考 Precautions: PCB Design(Recommended land dimensions for SOD-123 diode. Electrode patterns for PCBs)



- 中心距: 3.24
- 脚宽: 0.55
- 焊盘宽: 1.00
- 脚长: 0.50
- 焊盘长: 0.80

技术要求:

- 1, 塑封体尺寸: 2.70 X 1.60
- 2, 未注公差为: ±0.05
- 3, 所有单位: mm