

SOD-123 Schottky Barrier Diode 肖特基势垒二极管
Internal Configuration & Device Marking 内部结构与产品打标

Type 型号	BAT42W	BAT43W
Pin 管脚		
Mark 打标	S7	S8

Absolute Maximum Ratings 最大额定值

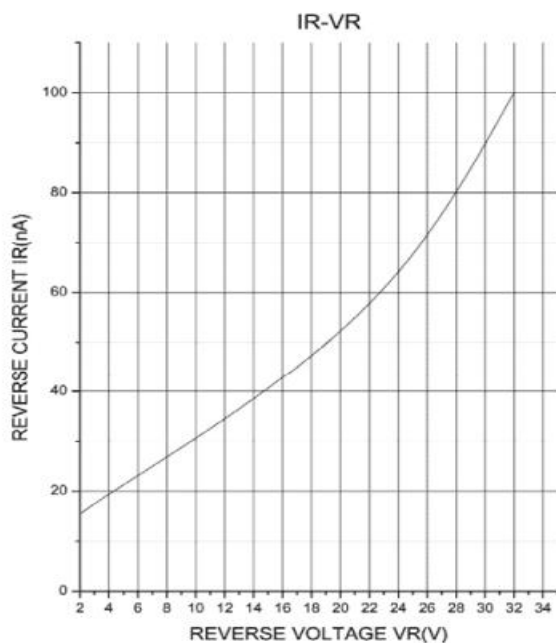
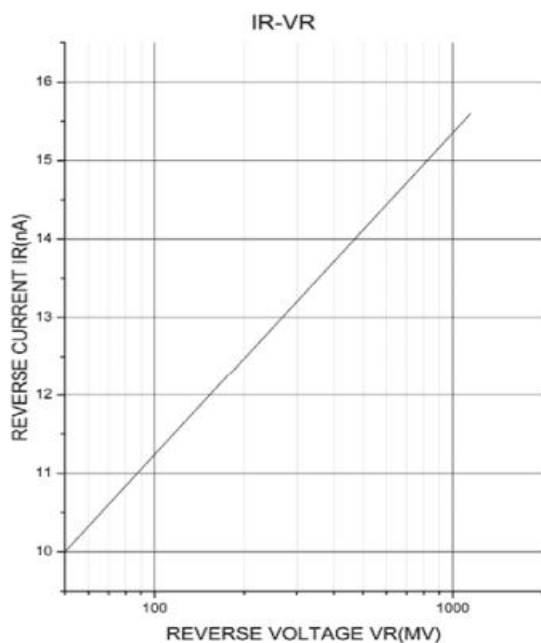
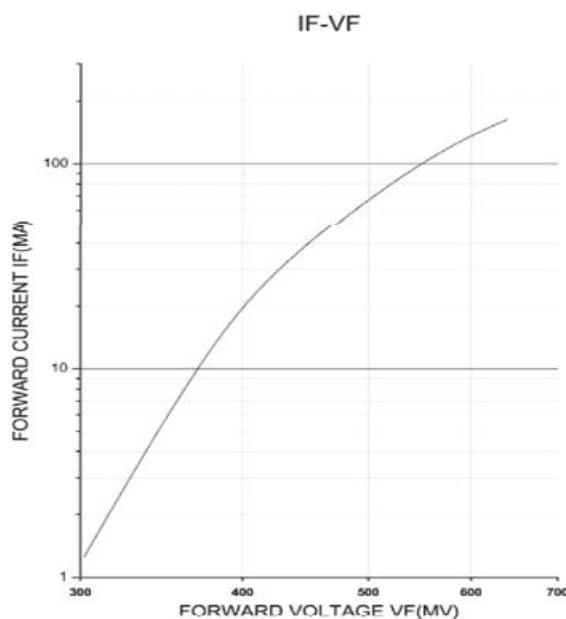
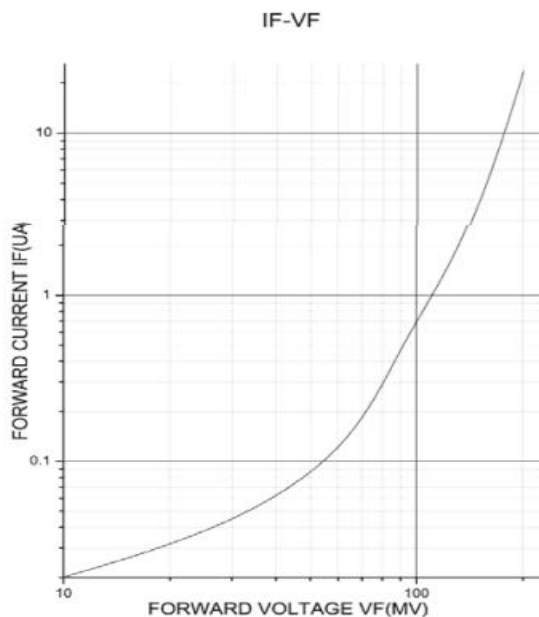
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Peak Reverse Voltage 反向峰值电压	V_{RRM}	30	V
Reverse Work Voltage 反向工作电压	V_{RWM}		
DC Reverse Voltage 直流反向电压	V_R		
RMS Reverse Voltage 反向电压均方根值	$V_{R(RMS)}$	21	V
Forward Work Current 正向工作电流	$I_F(I_O)$	200	mA
Peak Forward Current 正向峰值电流	I_{FM}	500	mA
Power dissipation 耗散功率	$P_D(T_a=25^{\circ}C)$	500	mW
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	250	$^{\circ}C/W$
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	-55to+150 $^{\circ}C$	

Electrical Characteristics 电特性

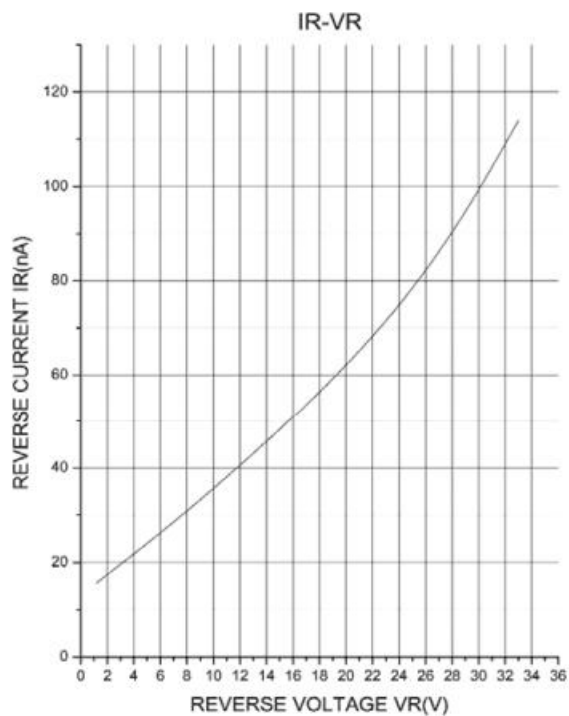
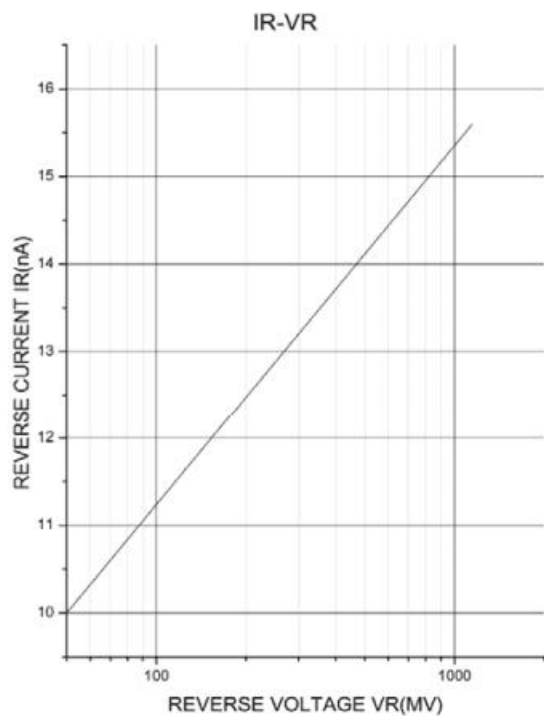
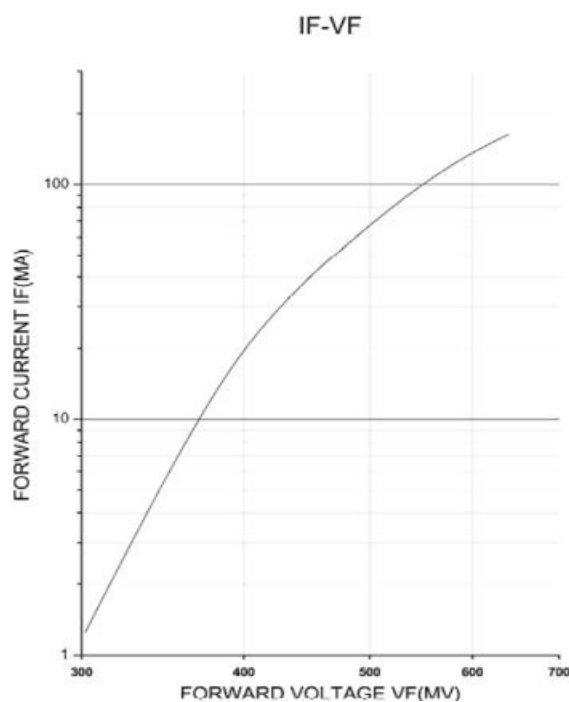
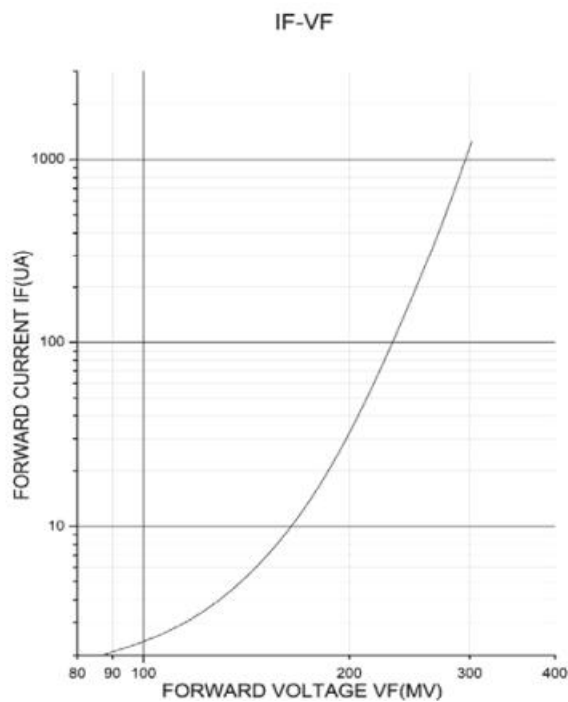
($T_A=25^{\circ}C$ unless otherwise noted 如无特殊说明, 温度为 $25^{\circ}C$)

Characteristic 特性参数	Symbol 符号	Min 最小值	Max 最大值	Unit 单位
Reverse Breakdown Voltage 反向击穿电压($I_R=10\mu A$)	$V_{(BR)}$	30	—	V
Reverse Leakage Current 反向漏电流($V_R=25V$)	I_R	—	0.5	μA
Forward Voltage(BAT43W $I_F=2mA$) 正向电压(BAT42W $I_F=10mA$) (BAT43W $I_F=15mA$) (BAT42W $I_F=50mA$) (BAT42W/BAT43W $I_F=200mA$)	V_F	0.26	0.33 0.4 0.45 0.65 1	V
Diode Capacitance 二极管电容($V_R=1V, f=1MHz$)	C_D	—	10	pF
Reverse Recovery Time 反向恢复时间	T_{rr}	—	5	nS

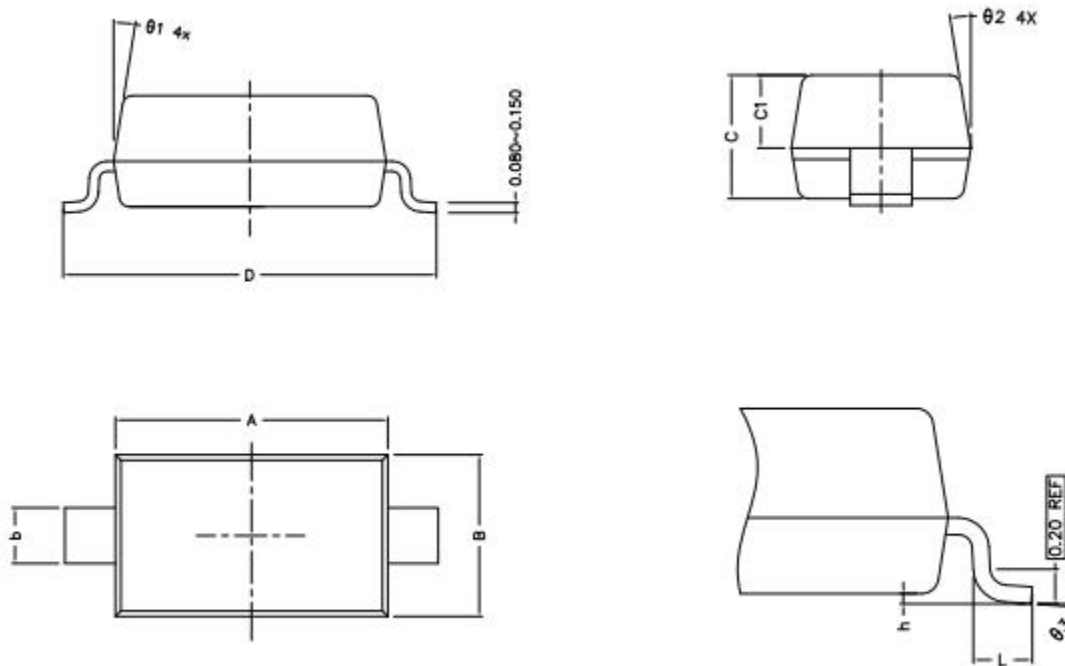
■ Typical Characteristic Curve 典型特性曲线 BAT42W



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■Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.600	2.800	0.102	0.110
B	1.500	1.700	0.059	0.067
C	1.050	1.150	0.041	0.045
C1	0.600	0.700	0.024	0.028
D	3.550	3.850	0.140	0.152
L	0.250	0.450	0.010	0.018
b	0.450	0.650	0.018	0.026
h	0.020	0.120	0.001	0.005
θ 3	0°	7°	0°	7°