

SOD-123 Plastic-Encapsulate Diodes

• Features

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications.



SOD-123

• MAXIMUM RATINGS (T_C=25°C)

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	20	V
Peak Repetitive Reverse Voltage	V _{RRM}	20	V
Working Peak Reverse Voltage	V _{RWM}	20	V
RMS Reverse Voltage	V _{R(RMS)}	14	V
Average Rectified Output Current	I _O	1	A
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I _{FSM}	9	A
Power Dissipation	P _D	500	mW
Thermal Resistance from Junction to Ambient	R _{ΘJA}	200	°C/W
Operation Junction and Storage Temperature Range	T _J , T _{stg}	-55~+150	°C

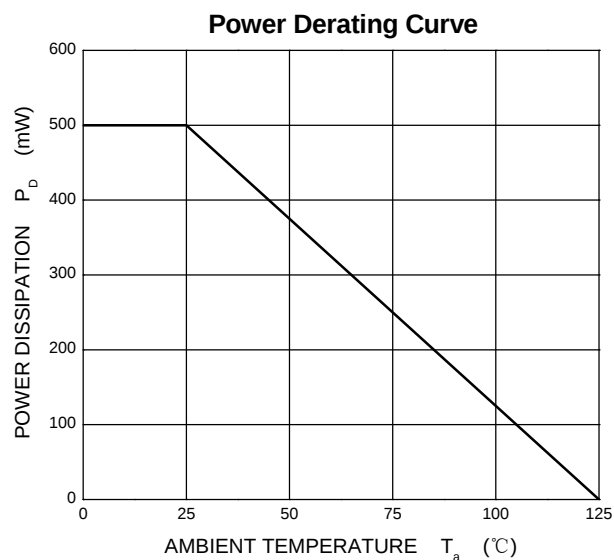
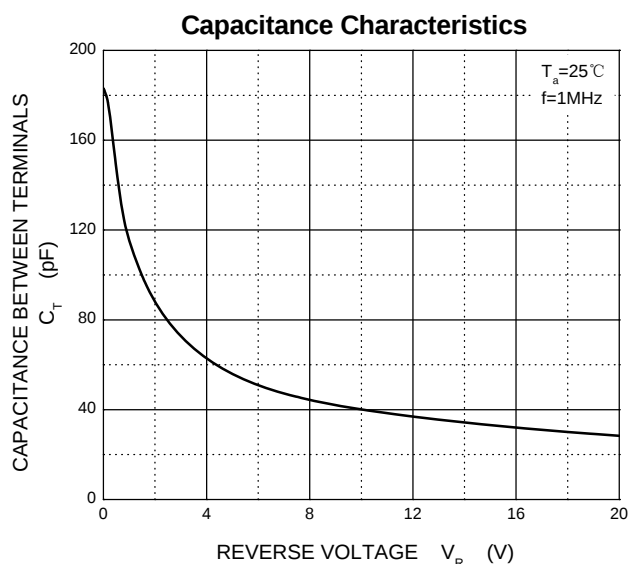
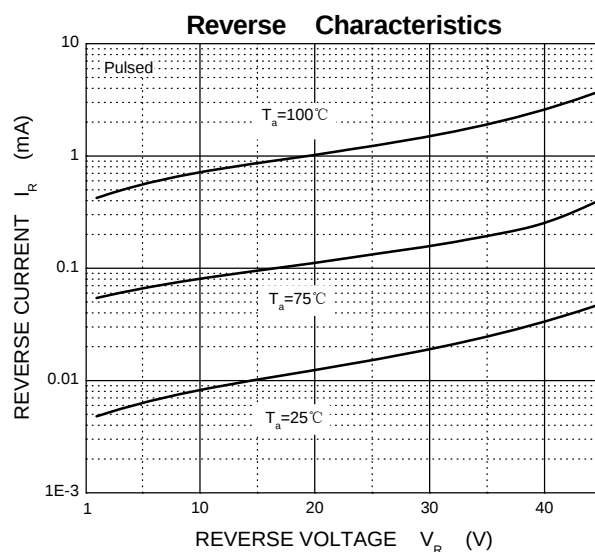
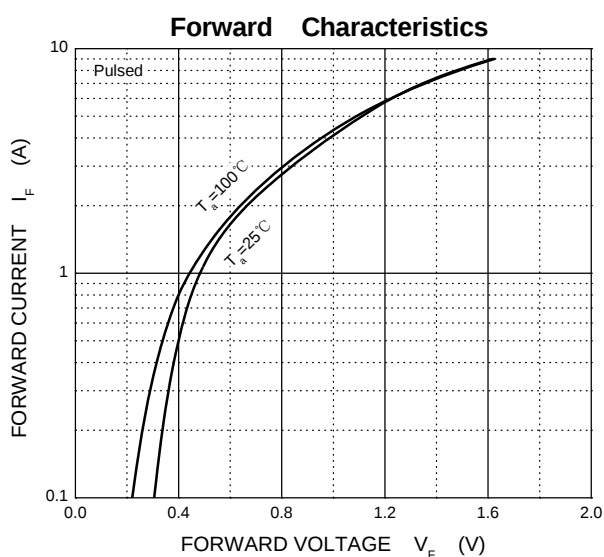
• ELECTRICAL CHARACTERISTICS (T_a=25°C)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	V _(BR)	I _R = 1mA	20		V
Reverse voltage leakage current	I _R	V _R =20V		1	mA
Forward voltage	V _F	I _F =1A I _F =3A		0.45 0.75	V
Diode capacitance	C _D	V _R =4V, f=1MHz		120	pF

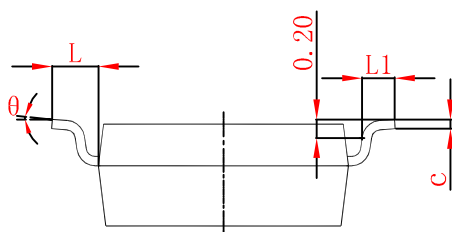
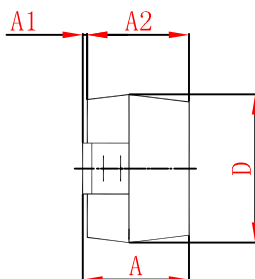
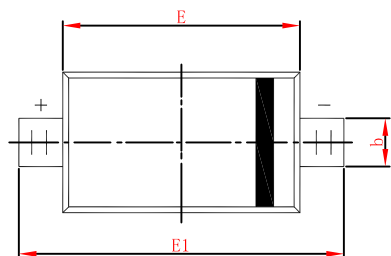
• Ordering Information:

Part NO.	B5817W
Marking	SJ
Packing Information	REEL TAPE
Basic ordering unit (pcs)	3000

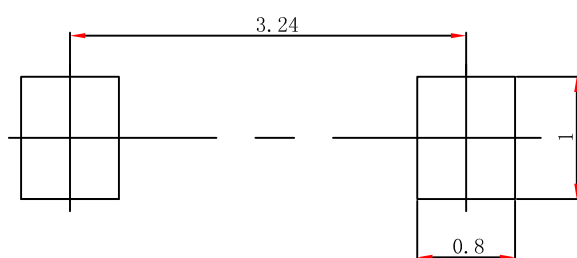
• Typical Characteristics



SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.