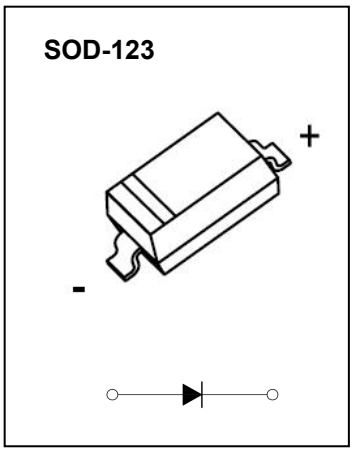
SOD-1 23 Plastic-Encapsulate Diodes

FEATURES

- Low Reverse Current
- Surface Mount Package Ideally Suited for Automatic Insertion
- Fast Switching Speed
- For General Purpose Switching Applications



MARKING:

TKBAV19W	TKBAV20W	TKBAV21W
A8	T2	T3
		

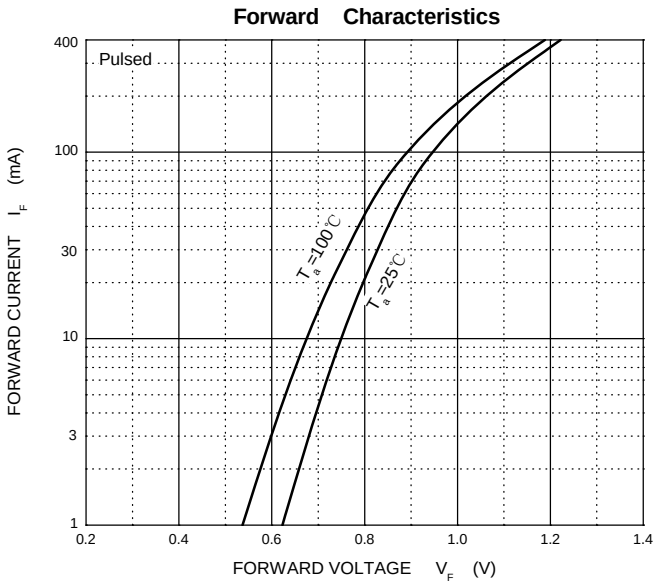
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

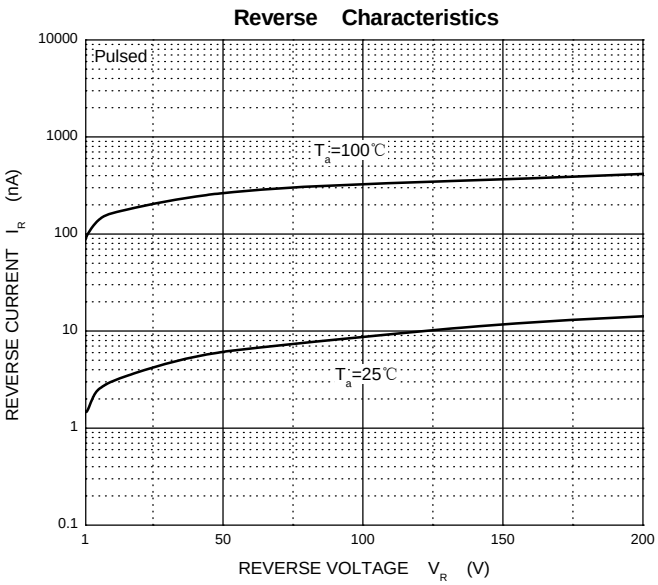
Symbol	Parameter	Value			Unit
		TKBAV19W	TKBAV20W	TKBAV21W	
V_{RM}	Non-Repetitive Peak Reverse Voltage	120	200	250	V
V_{RRM}	Peak Repetitive Reverse Voltage	100	150	200	V
V_{RWM}	Working Peak Reverse Voltage				
$V_{R(RMS)}$	RMS Reverse Voltage	71	106	141	V
I_O	Average Rectified Output Current	200			mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ t=8.3ms	2.0			A
P_D	Power Dissipation	500			mW
$R_{\Theta JA}$	Thermal Resistance from Junction to Ambient	250			℃/W
T_j	Junction Temperature	150			℃
T_{stg}	Storage Temperature	-55~+150			℃

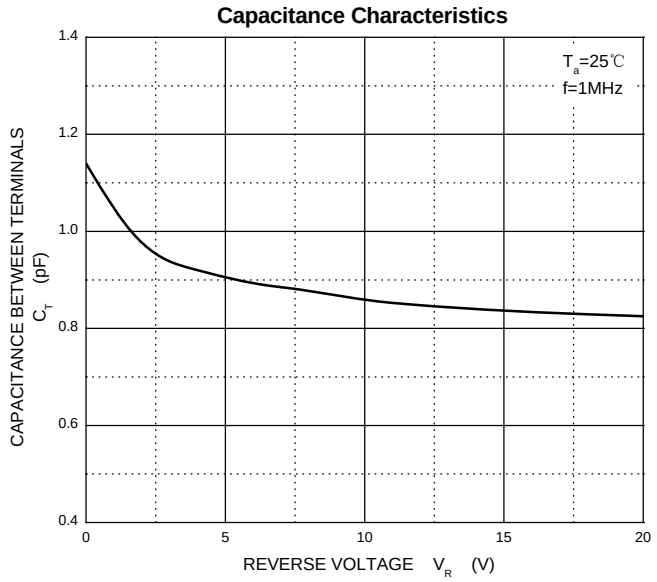
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

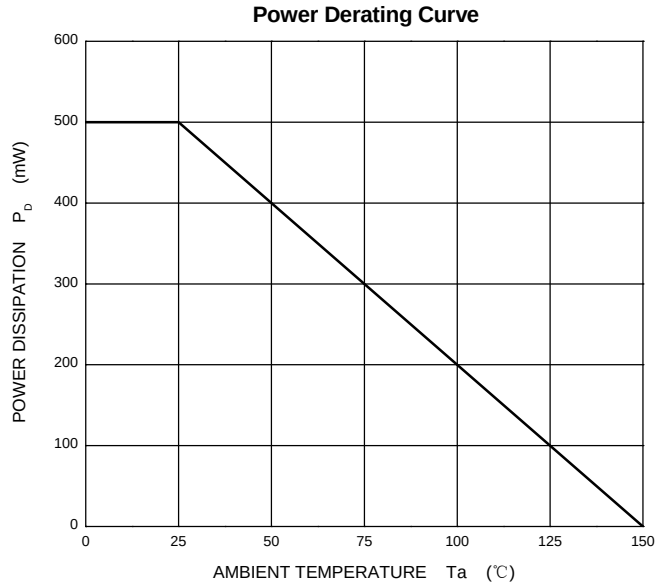
Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Reverse current	I_R	V_R=100V	TKBAV19W			0.1	uA
		V_R=150V	TKBAV20W			0.1	
		V_R=200V	TKBAV21W			0.1	
Forward voltage	V_F	I_F=100mA				1	V
		I_F=200mA				1.25	
Total capacitance	C_{tot}	V_R=0V,f=1MHz				5	pF
Reverse recovery time	t_{rr}	I_F= I_R =30mA, I_{rr}=0.1*I_R , R_L=100Ω				50	ns

Typical Characteristics

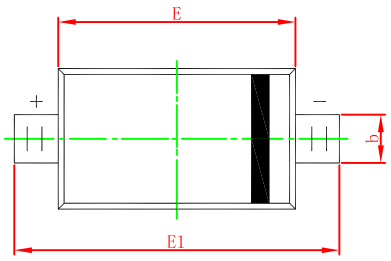


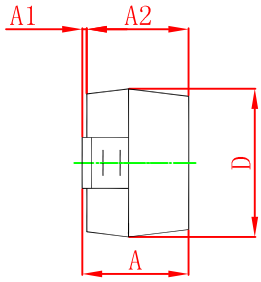


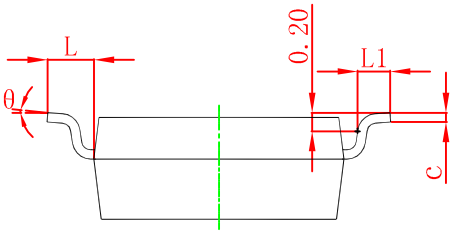




SOD-123 Package Outline Dimensions

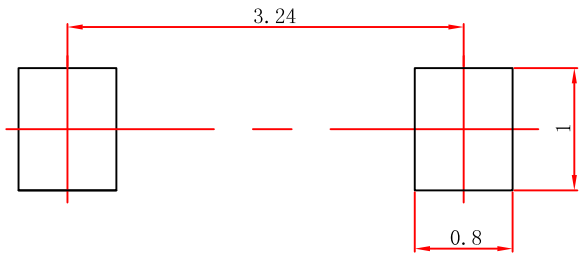






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020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

SOD-123 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.