TKB1040W

SCHOTTKY BARRIER DIODE

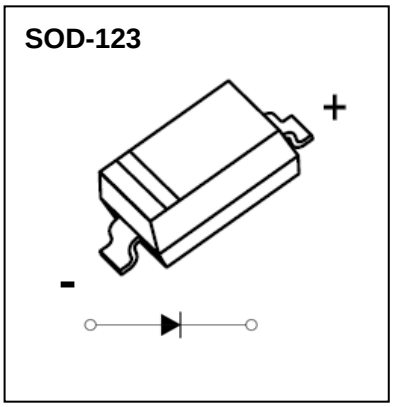
SOD-123 Plastic-Encapsulate Diodes

FEATURES

- Low Forward Voltage Drop
- Very Small SMD Package

APPLICATIONS

- Low Voltage Rectification
- High Efficiency DC/DC Conversion
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Applications



MARKING: SZ



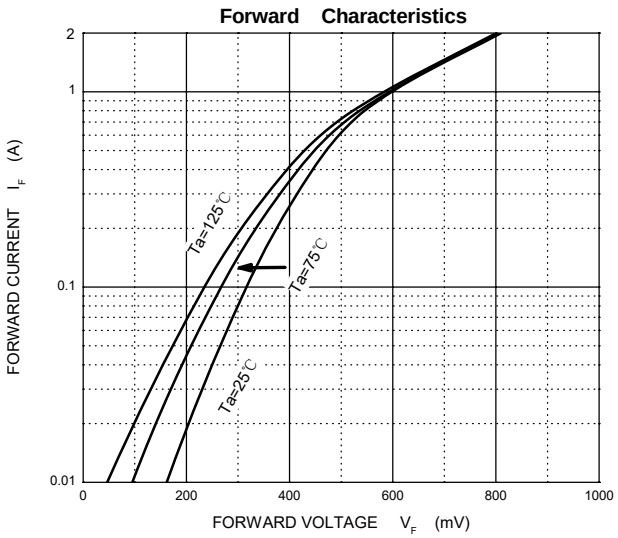
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

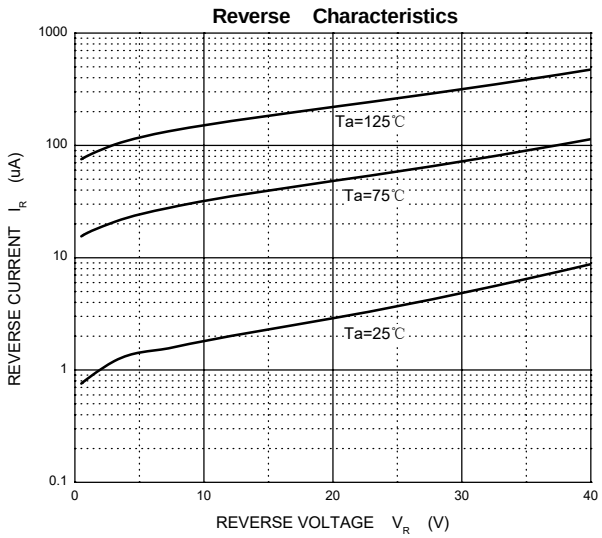
Symbol	Parameter	Value	Unit
V_{RRM}	Peak Repetitive Reverse Voltage	40	V
V_{RWM}	Working Peak Reverse Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	28	V
I_O	Average Rectified Output Current	1	A
I_{FSM}	Non-repetitive Peak Forward Surge Current @ t=8.3ms	5	A
P_D	Power Dissipation	350	mW
$R_{\Theta JA}$	Thermal Resistance from Junction to Ambient	400	℃/W
T_j	Operating Junction Temperature Range	-40 ~ +125	℃
T_{stg}	Storage Temperature Range	-55 ~ +150	℃

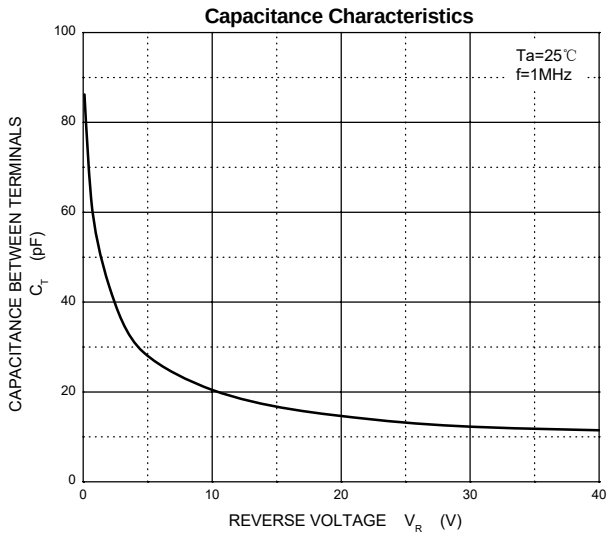
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

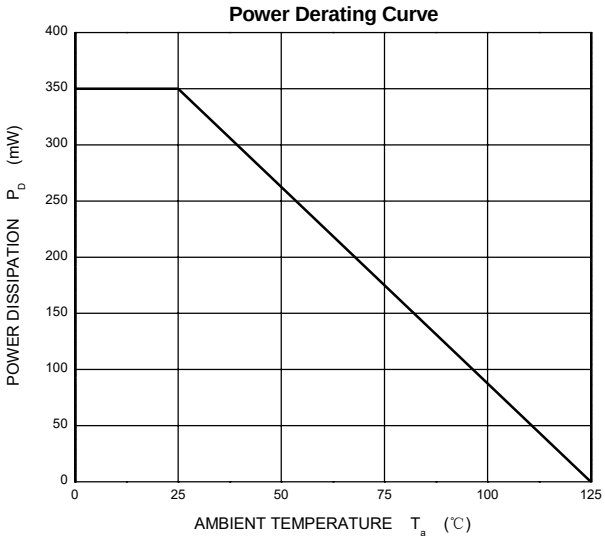
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R=1mA	40			V
Reverse current	I_R	V_R=20V			50	uA
Forward voltage	V_F	I_F=0.5A			0.51	V
		I_F=0.7A			0.55	
Total capacitance	C_{tot}	V_R=10V,f=1MHz			20	pF

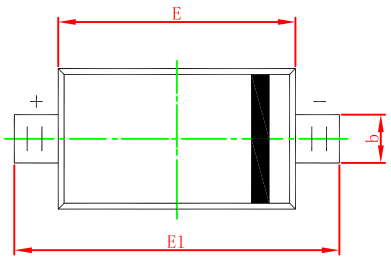
Typical Characteristics

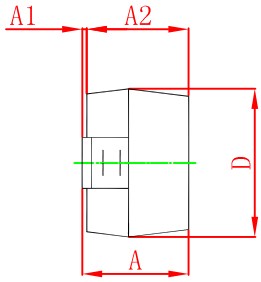


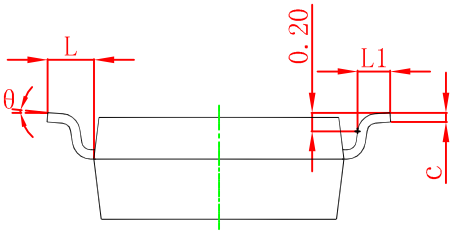






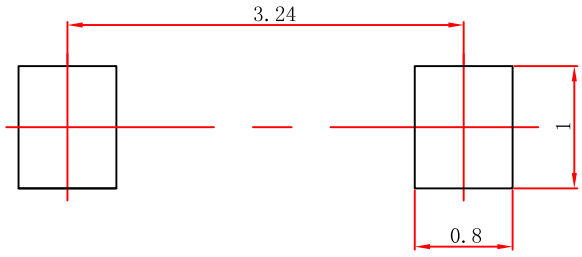






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020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