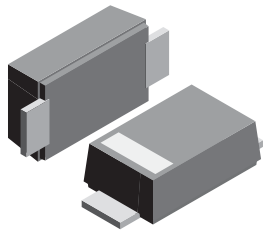
BAT41W

SURFACE MOUNT SMALL SIGNAL SCHOTTKY DIODES

VOLTAGE RANGE: 100V
CURRENT: 100mA



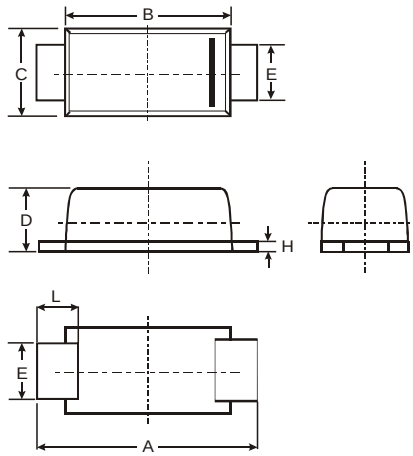
Features

- or general purpose applications
- his diode features low turn-on voltage andh igh reakdown voltage. This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges

Mechanical Data

- Case: SOD-123FL plastic body over passivated junction
- Terminals : Plated axial leads,
- solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight:0.0007 ounce, 0.02 grams

RoHS COMPLIANT



SOD-123FL			
Dim	Min	Max	Typ
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
All Dimensions in mm			

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Continuous reverse voltage	V_{RRM}	100	V
Forw ard continuous current @T_A=25℃	I_F	100 [1)]	mA
Repetitive peak forward current tp≤1s,δ≤0.5	I_{FRM}	350 [1)]	mA
Surge forw ard current @tp≤10ms	I_{FSM}	750 [1)]	mA
Pow er dissipation @T_A=95℃	P_{tot}	100 [1)]	mW
Junction temperature	T_J	-55 ---+ 125	℃
Ambient operating temperature range	T_L	230	℃
Storage temperature range	T_{STG}	-55 ---+ 150	℃

1) On infinite heatsink with 4mm lead length.

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse breakdown voltage @I_R=100μ A,T_j=25℃	V_{BR}	100	-	-	V
Forw ard voltage @ I_F=1mA,T_j=25℃	V_F	-	0.4	0.45	V
@ I_F=200mA,T_j=25 ℃		-	-	1.0	
Leakage current @T_j=25 ℃	I_R	-	-	0.1	μA
VR=50V @T_j=100 ℃		-	-	20	
Junction capacitance at VR=1V,f=1MHz	C_J	-	-	20	pF
Thermal resistance junction to ambient	$R_{\theta JA}$	-	-	300[1)]	℃/W

2)Pulse test tp<300 s,

FIG.1 – ADMISSIBLE POWER DISSIPATION VS. AMBIENT TEMPERATURE

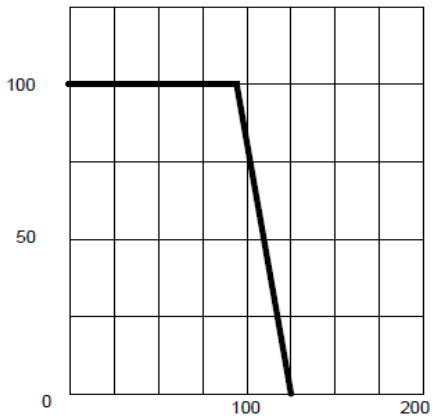


FIG. 2–TYPICAL INSTANTANEOUS FORWORD CHARACTERISTICS

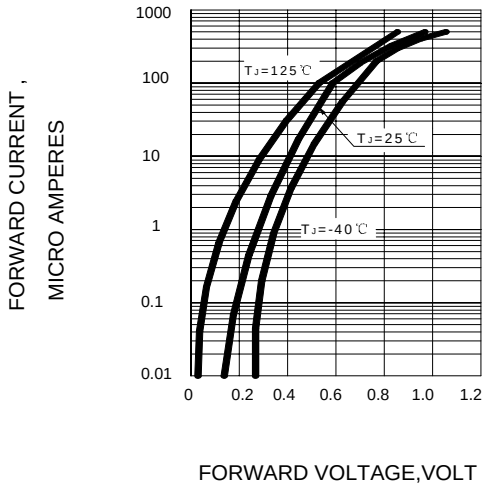


FIG. 3 – TYPICAL REVERSE CHARACTERISTICS

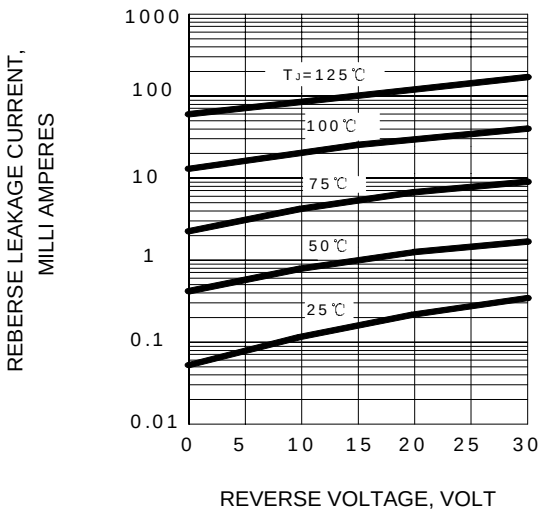


FIG.4 – TYPICAL JUNCTION CAPACITANCE