BAT42W / BAT43W

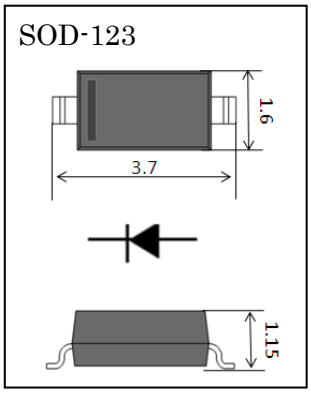
SMD Small Signal Schottky Diode

Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	400	mW
T_{STG}	Storage Temperature Range	-65 to +125	°C
T_J	Operating Junction Temperature	+125	°C
V_{RRM}	Repetitive Peak Reverse Voltage	30	V
V_R	Maximum DC Blocking Voltage	30	V
$I_{F(AV)}$	Average Forward Rectified Current	200	mA
I_{FSM}	Peak Forward Surge Current	4	A

These ratings are limiting values above which the serviceability of the diode may be impaired.



Specification Features:

- Low Forward Voltage Drop
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode
- Compliant to Halogen - free

Device Marking Code	
BAT42W	**S7**
BAT43W	**S8**

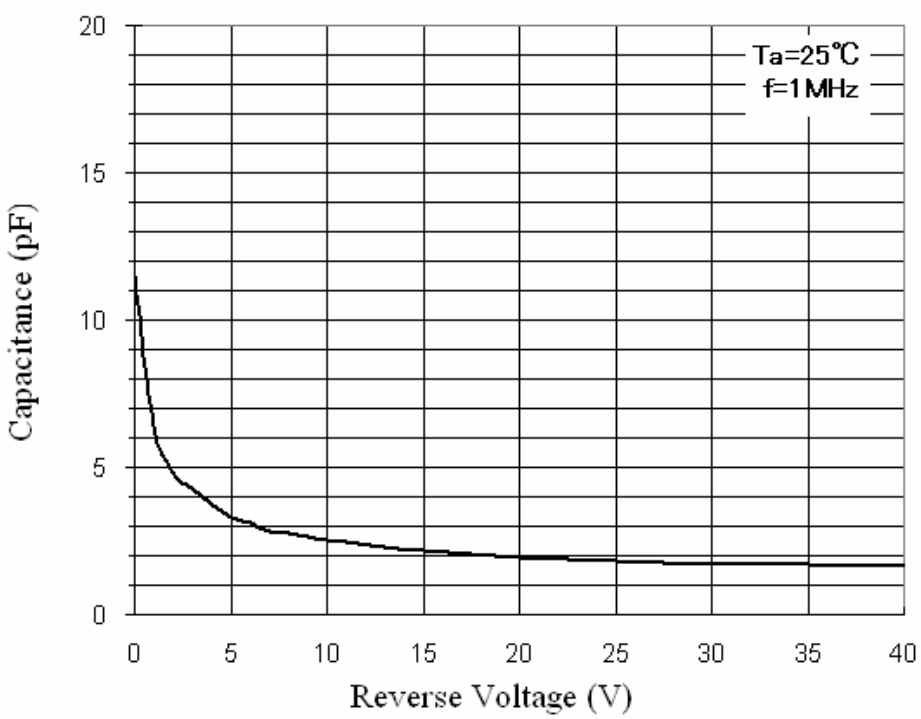
Electrical Characteristics

T_A = 25°C unless otherwise noted

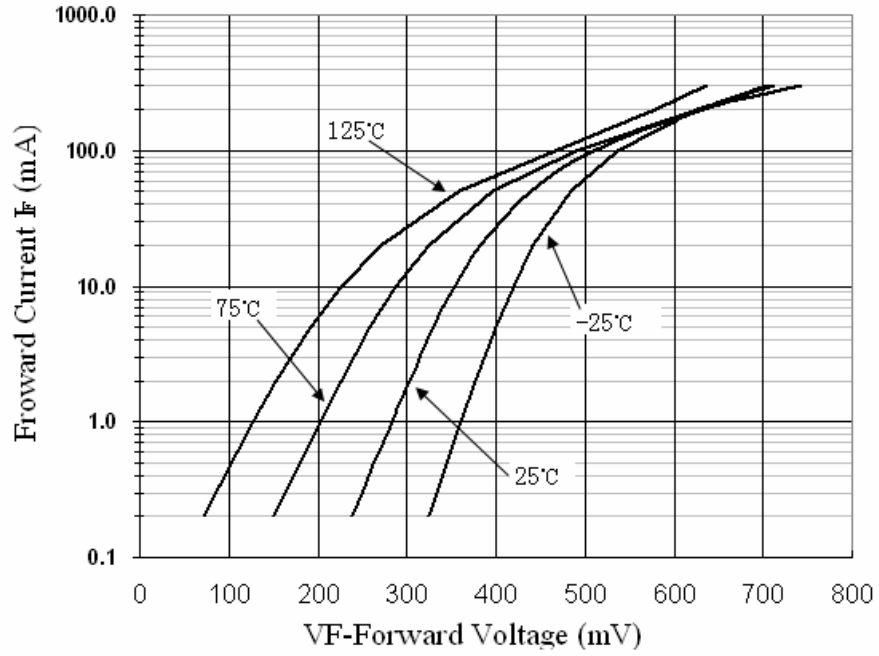
Symbol	Parameter		Test Condition	Limits Min	Limits Max	Unit
B_V	Breakdown Voltage		I_R=100μA	30		Volts
I_R	Reverse Leakage Current		V_R=25V		500	nA
V_F	Forward Voltage	BAT42W	I_F=10mA		0.40	
			I_F=50mA		0.65	
		BAT43W	I_F=2mA	0.26	0.33	Volts
			I_F=15mA		0.45	
		BAT42W, BAT43W	I_F=200mA		1.0	
T_{RR}	Reverse Recovery Time		I_F=I_R=10mA R_L=100Ω I_{RR}=1mA	5 (Typical)		nS
C	Capacitance		V_R=1V, f=1M_{HZ}	7 (Typical)		pF

Typical Performance Characteristics

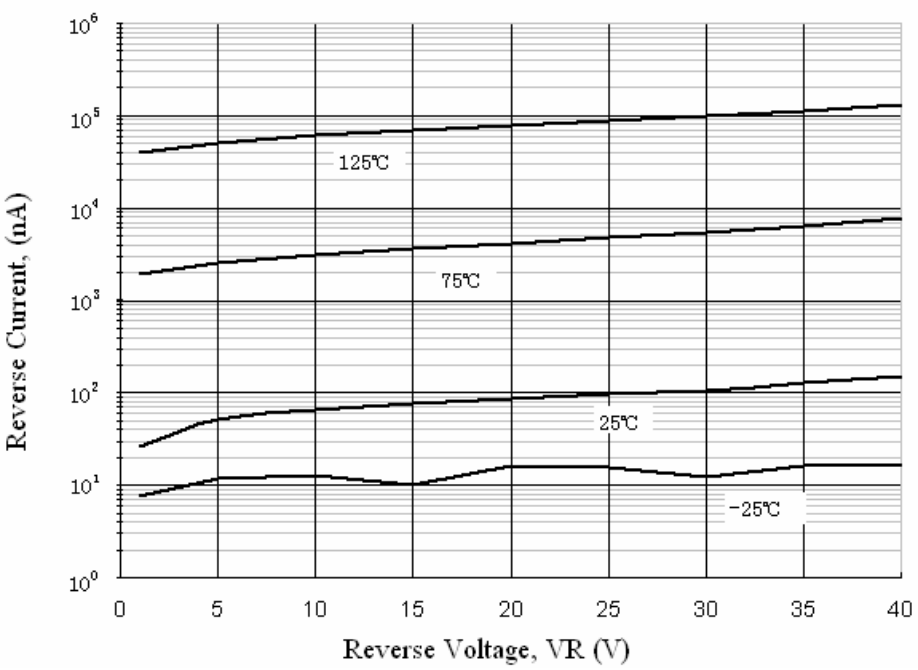
Total Capacitance



Forward Voltage vs Ambient Temperature

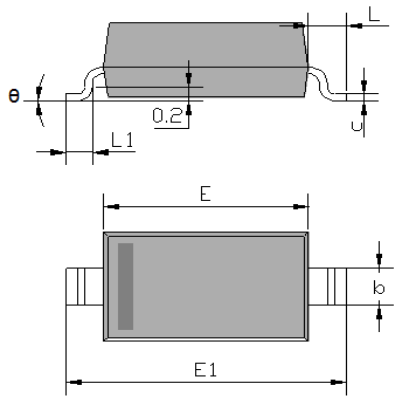


Reverse Current vs Reverse VoltageReverse

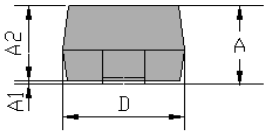


Package Dimensions

Package outline : SOD-123

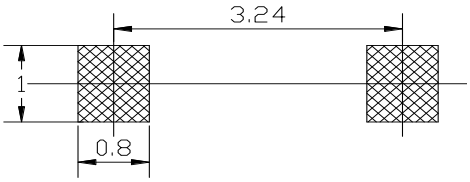


SOD123 Package Outline



Unit	A	A1	A2	b	c	D	E	E1	L	L1	θ
Max.	1.25	0.10	1.15	0.65	0.15	1.70	2.80	3.85	0.500 REF.	0.45	8°
Min.	1.05	0.00	1.05	0.45	0.08	1.50	2.60	3.55		0.25	0°

Note:
1. Halogen free,EMC
2. Pb free solder
3. Lead thickness includes solder plating
4. Lead frame: A42
5. Other Tolerance: ±0.05
6. Dimensions are exclusive of Burrs,Mold Flash and Tie Bar extrusions
7. Unit: mm



Land Pattern Recommendation