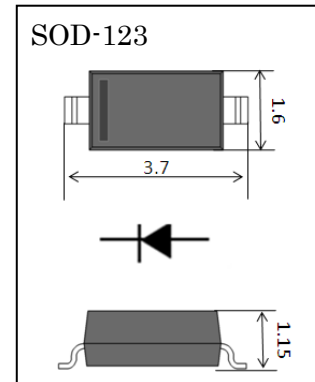


Absolute Maximum Ratings T_A = 25°C unless otherwise noted

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

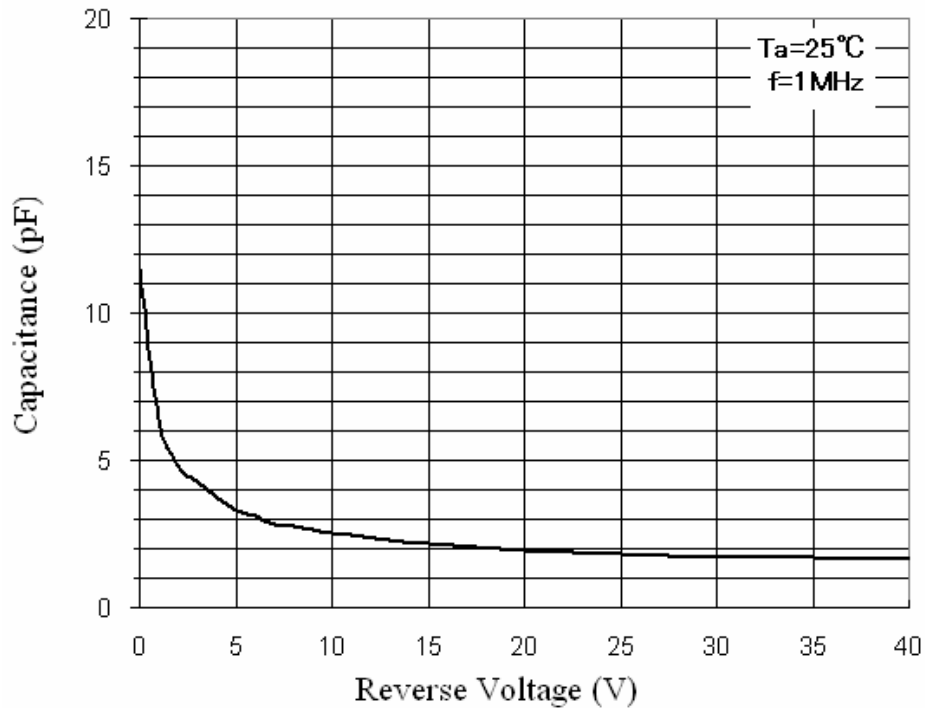
Device Marking Code	
BAT42W	S7
BAT43W	S8

Electrical Characteristics T_A = 25°C unless otherwise noted

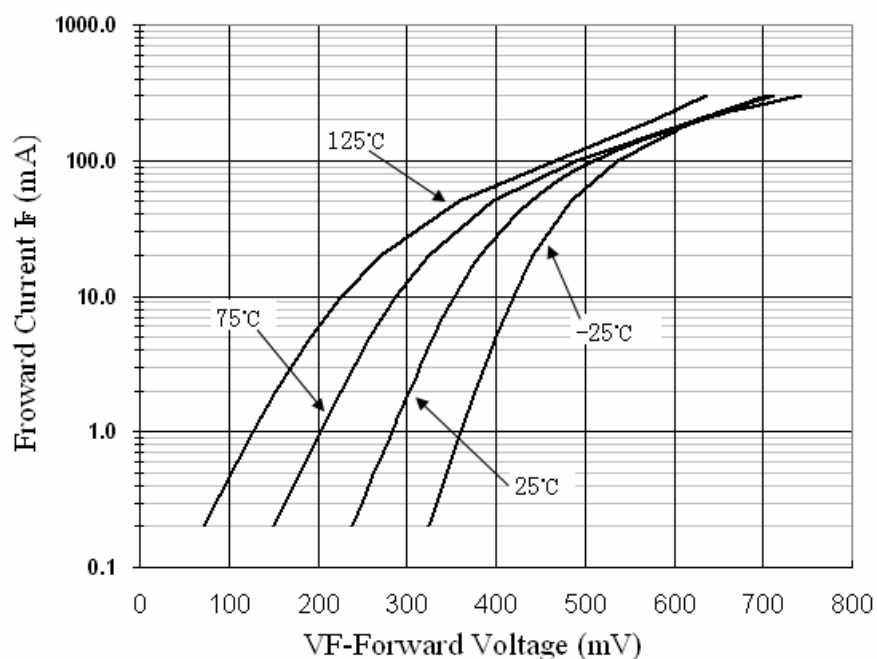
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	I _R =100μA	30		Volts
I_R	Reverse Leakage Current	V _R =25V		500	nA
V_F	Forward Voltage	BAT42W I _F =10mA	0.26	0.40	Volts
		I _F =50mA		0.65	
		BAT43W I _F =2mA		0.33	
		I _F =15mA		0.45	
		BAT42W, BAT43W I _F =200mA		1.0	
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=1MHz	7 (Typical)		pF

Typical Performance Characteristics

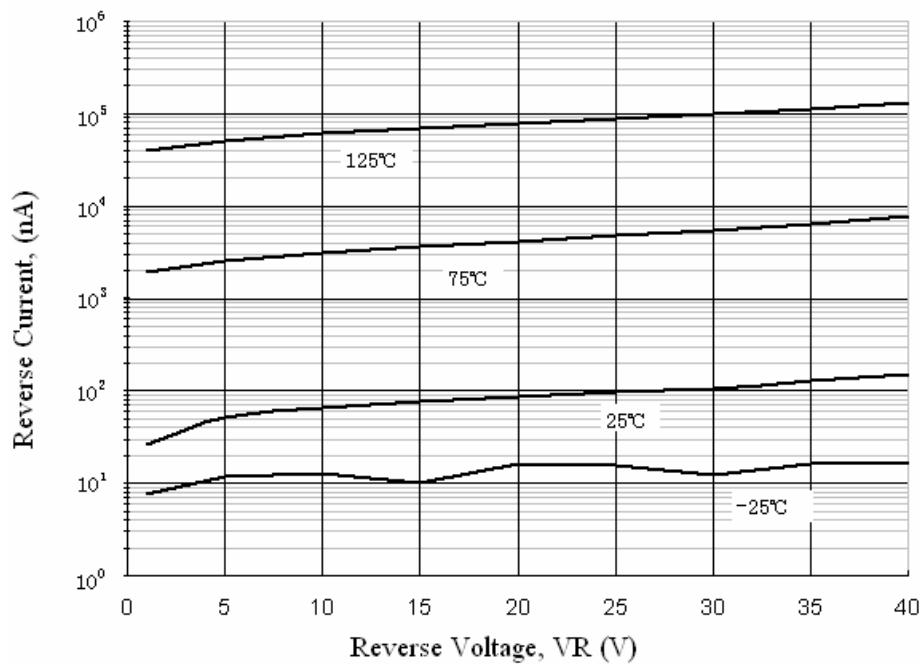
Total Capacitance



Forward Voltage vs Ambient Temperature

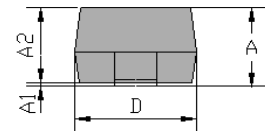
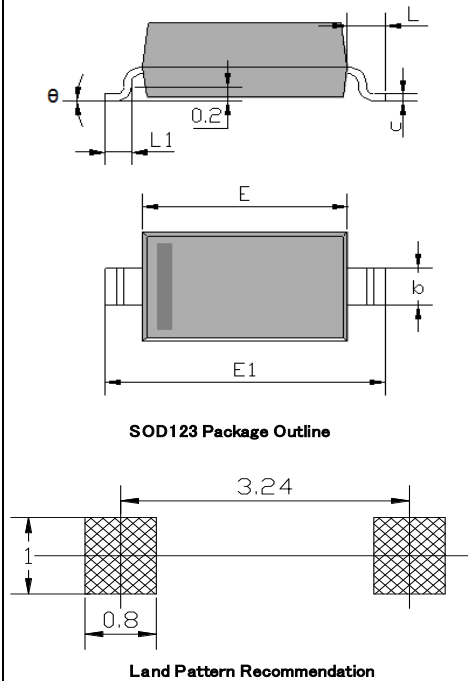


Reverse Current vs Reverse Voltage



Package Dimensions

Package outline : SOD-123



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	0.45	8°
Min.	1.05	0.00	1.05	0.45	0.08	1.50	2.60	3.55	REF.	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