THE DATASHEET OF

BAT43WT/R

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Technical Data
Data Sheet N0713, Rev. A

Green Products

BAT42W/BAT43W
SURFACE MOUNT SCHOTTKY BARRIER DIODE

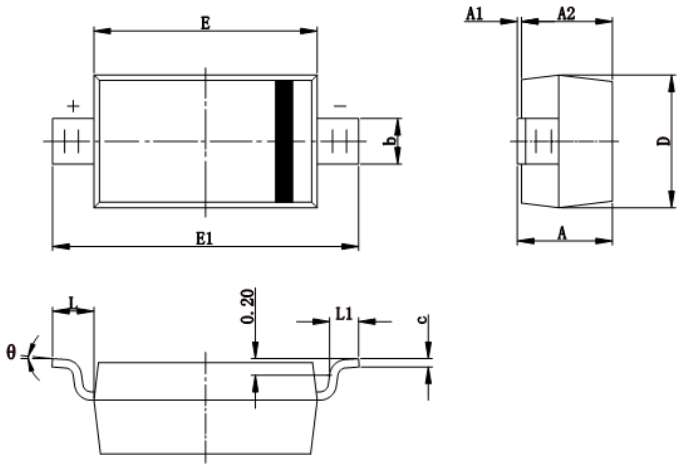
Features:

- **Low Turn-on Voltage**
- **Fast Switching**
- **PN Junction Guard Ring Transient and ESD Protection**
- **Designed for Surface Mount Application**
- **Plastic Material —UL Recognition Flammability Classification 94V-O**
- **Green Products in Compliance with the ROHS Directive**
- **This is a Pb − Free Device**
- **All SMC parts are traceable to the wafer lot**
- **Additional testing can be offered upon request**

Mechanical Data:

- **Case: SOD-123, Molded Plastic**
- **Terminals: Plated Leads Solderable per MIL-STD-202, Method 208**
- **Polarity: Cathode Band**
- **Weight: 0.01 grams(approx)**

Mechanical Dimensions: In mm / Inches



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(CJ)

Technical Data
Data Sheet N0713, Rev. A

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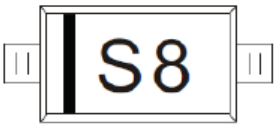
Marking Diagram:

BAT42W



BAT43W

S7/S8 = Part Name

Cautions: Molding resin
Epoxy resin UL: 94V-0

Ordering Information:

Device	Package	Shipping
BAT42W/BAT43W	SOD-123(Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Technical Data
Data Sheet N0713, Rev. A

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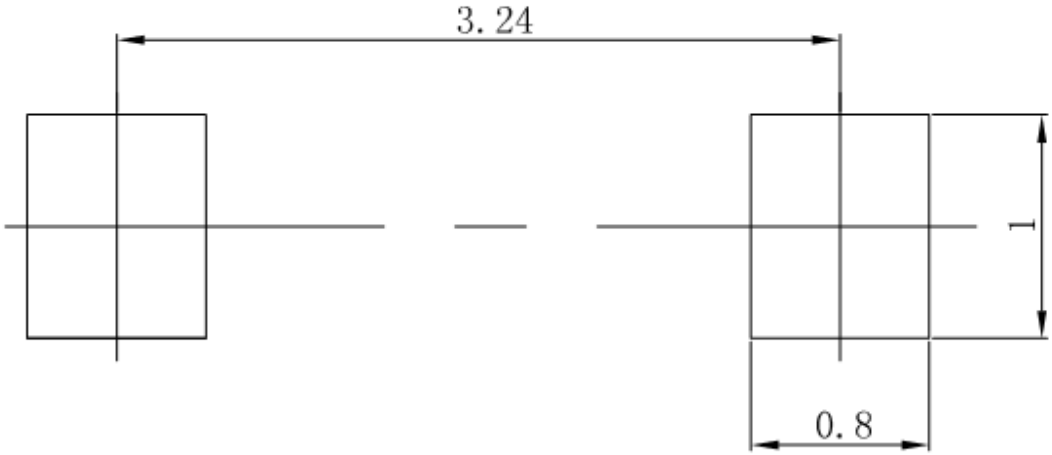
Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	BAT42W/BAT43W	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current	I_{FM}	0.2	A
Repetitive Peak Forward Current @t<1.0s	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	4.0	A
Power Dissipation	P_d	500	mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	200	°C/W
Junction Temperature Range	T_J	125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Characteristic		Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage		$V_{(BR)}$	30	-	-	V	I_R=10μA
Forward Voltage	All Types	V_F	-	-	1.0	V	I_F=200mA
	BAT42W	V_F	-	-	0.4	V	I_F=10mA
	BAT42W	V_F	-	-	0.65	V	I_F=50mA
	BAT43W	V_F	0.26	-	0.33	V	I_F=2mA
	BAT43W	V_F	-	-	0.45	V	I_F=15mA
Reverse Leakage Current		I_R	-	-	0.5	μA	V_R=25V
Junction Capacitance		Cj	-	-	10	pF	V_R=1.0V,f=1.0MHz

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.

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Data Sheet N0713, Rev. A

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