

BAT42W-BAT43W

SOD-123 Plastic-Encapsulate Schottky Barrier Diode

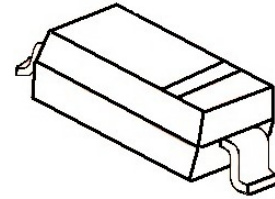
Features

- High Current Capability
- Low Forward Voltage Drop

Mechanical Data

- SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

SOD-123



Marking: BAT42W: S7
BAT43W: S8

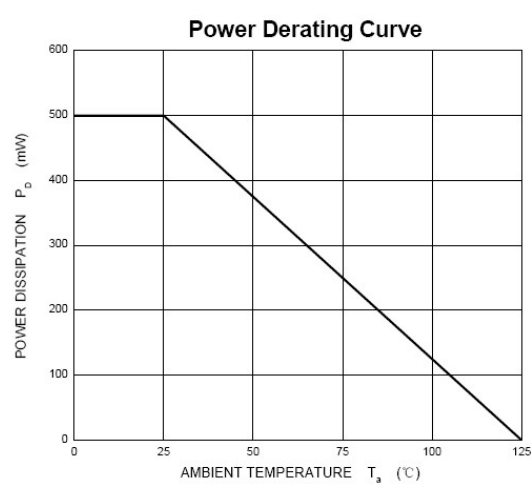
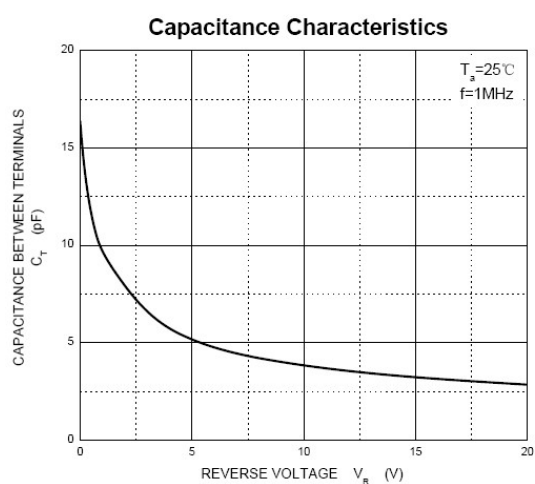
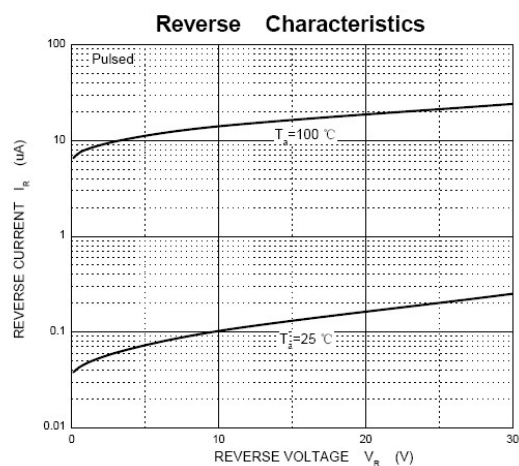
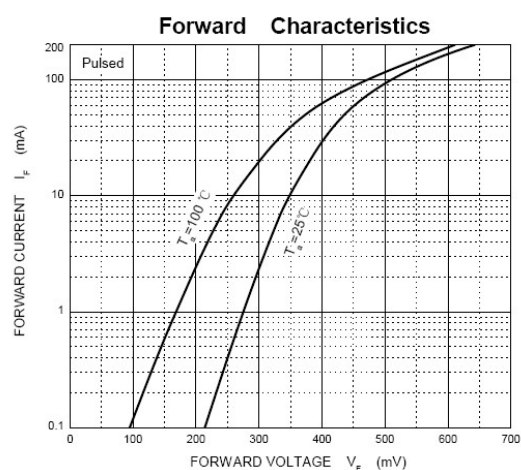
Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	BAT42W/BAT43W	Unit
Maximum repetitive peak reverse voltage	VRRM	30	V
Maximum RMS voltage	VRMS	21	V
Maximum DC blocking voltage	VDC	30	V
Maximum average forward rectified current	IFM	200	mA
Repetitive Peak Forward Current @t<1.0s	IFRM	500	mA
Peak forward surge current 8.3 ms single half sine-wave	IFSM	4.0	A
Typical thermal resistance	RθJA	200	°C/W
Power Dissipation	PD	500	mW
Junction Temperature	Tj	125	°C
Storage temperature range	TSTG	-50-+150	°C

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Test conditions	Min	Typ	Max	Unit
Maximum forward voltage	BAT42W/BAT43W	VF	IF = 200mA		1.0	V
	BAT42W	VF	IF = 10mA		0.40	
		VF	IF = 50mA		0.65	
	BAT43W	VF	IF = 2.0mA	0.26	0.33	
		VF	IF = 15mA		0.45	
Maximum reverse breakdown voltage	VR	IR=10uA	30			V
Maximum reverse current	IR	VR=25V			0.5	uA
Type junction capacitance	Cj	VR = 1.0V, f = 1MHz			10	pF
Reverse recovery time	trr	IF=IR=10mA Irr=0.1xIR,RL=100 Ω			5	nS

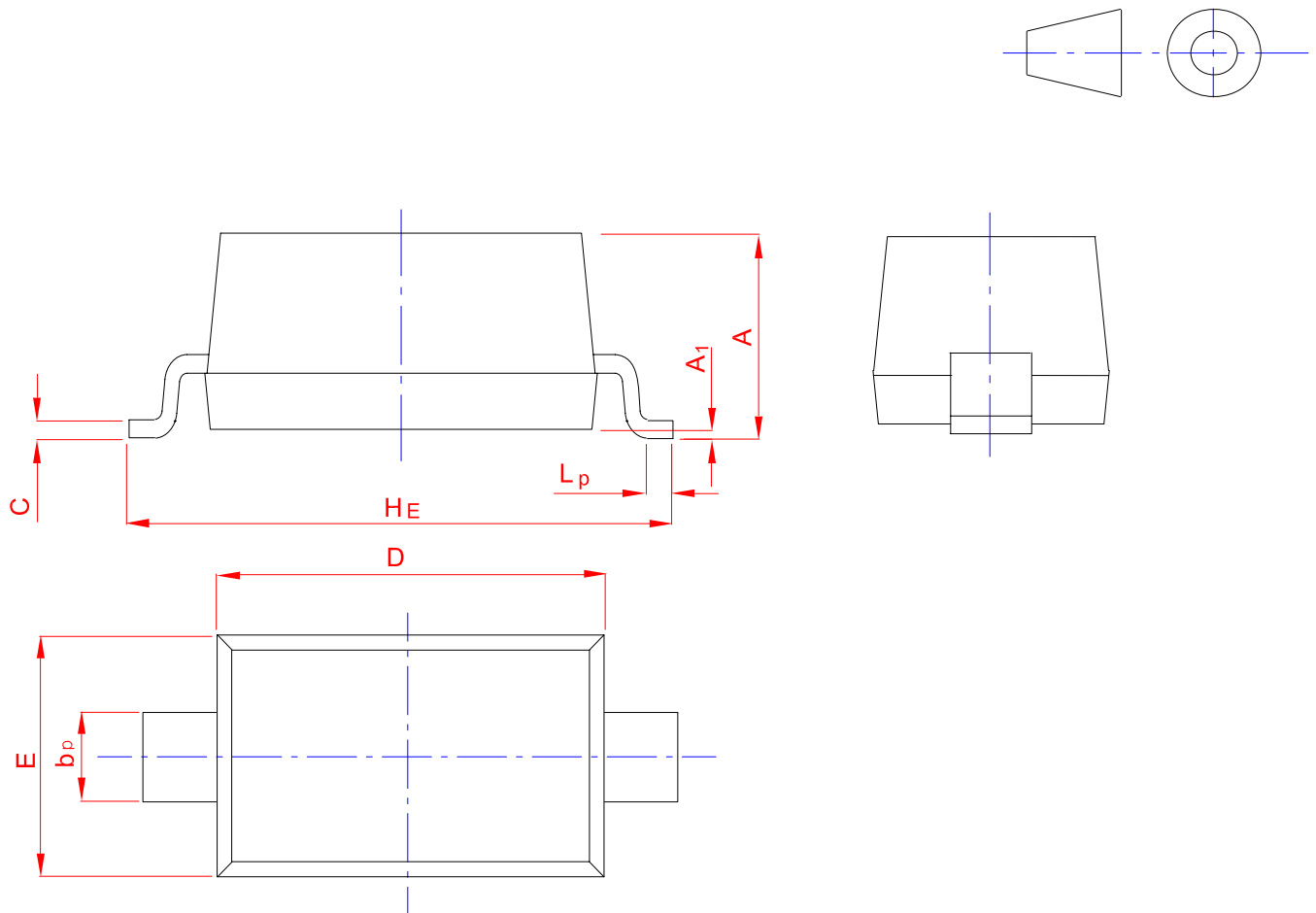
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b _p	C	D	E	H _E	A ₁	L _p
mm	1.25 0.90	0.65 0.45	0.15 0.08	2.80 2.55	1.70 1.50	3.85 3.55	0.10 0.01	0.50 0.20