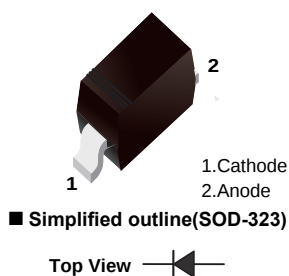


BAT42WS / BAT43WS

SCHOTTKY BARRIER DIODE

■ Features

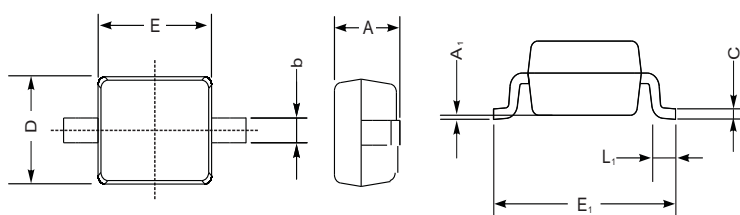
- Low Switching
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material - UL Recognition Flammability Classaification 94V-0



■ Marking

Type	BAT42WS	BAT43WS
Marking	S7	S8

SOD323



UNIT		A	C	D	E	E ₁	b	L ₁	A ₁
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—
mil	max	43	5.9	55	70	108	16	16	8
	min	32	3.1	47	63	100	9.8	7.9	—

■ Absolute Maximum Ratings Ta = 25°C

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	VRRM	30	V
Working Peak Reverse Voltage	VRWM		
DC Blocking Volatge	VR		
Forward Continuous Current (Note 1)	IF	200	mA
Rectified Peak Forward Current (Note 1) @ T < 1.0s	IFSM	500	mA
Non-Repetitive Peak Forward Current @ t < 10ms	IFSM	4.0	A
Power Dissipation	Pd	200	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	RθJA	625	K/W
Operating and Storage Temperature Range	Tj , TSTG	-55 to +125	°C

Note:

1. Valid provided that terminals are kept at ambient temperature.

BAT42WS / BAT43WS

■ Electrical Characteristics Ta = 25°C

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	@ $I_{RS} = 100 \mu A$	30			V
Forward Voltage	V_F	BAT42WS @ $I_F = 1.0 mA$			0.4	V
		BAT42WS @ $I_F = 200 mA$			1.0	
		BAT43WS @ $I_F = 2.0 mA$			0.33	
		BAT43WS @ $I_F = 200 mA$			1.0	
Reverse Leakage Current	I_R	@ $V_R = 25 V$			0.5	μA
Junction Capacitance	C_j	$V_R = 1.0 V, f = 1.0 MHz$			10	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10 mA$ $I_{RR} = 0.1 \times I_R, R_L = 100 \Omega$			5.0	nS

RATING AND CHARACTERISTIC CURVES (BAT42WS/BAT43WS)

