



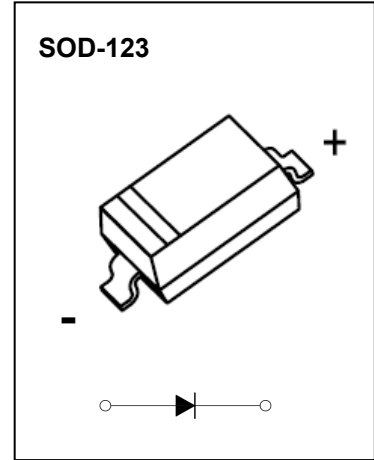
SOD-123 Plastic-Encapsulate Diodes

BAT42W/BAT43W SCHOTTKY BARRIER DIODE

FEATURES

- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally Suited for Automatic Insertion

MARKING: BAT42W S7
BAT43W S8



Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

Parameter	Symbol	BAT42W/BAT43W	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current	I_{FM}	200	mA
Repetitive Peak Forward Current @t<1.0s	I_{FRM}	500	mA
Peak Forward Surge Current @t<10ms	I_{FSM}	4.0	A
Power Dissipation	P_D	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	200	/W
Junction temperature	T_J	125	°C
Storage Temperature	T_{STG}	-55~+150	°C

Electrical Ratings @Ta=25°C

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	30			V	$I_R=10\mu A$
Forward voltage	V_F			1.0	V	$I_F=200mA$
				0.4	V	$I_F=10mA$
				0.65	V	$I_F=50mA$
				0.26	V	$I_F=2mA$
				0.45	V	$I_F=15mA$
Reverse current	I_R			0.5	μA	$V_R=25V$
Capacitance between terminals	C_T			10	pF	$V_R=1.0V, f=1.0MHz$
Reverse recovery time	t_{rr}			5	ns	$I_F=I_R=10mA$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

Typical Characteristics

BAT42W

