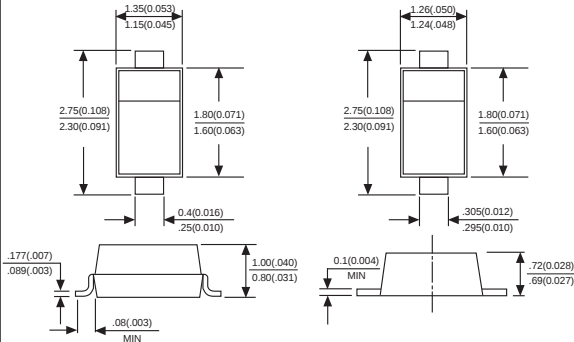




BAT42WS-BAT43WS

SCHOTTKY DIODES

SOD-323



Dimensions in millimeters and (inches)

FEATURES

- ◆ Low forward voltage drop
- ◆ Fast switching time
- ◆ Surface mount package ideally suited for automatic insertion
- ◆ Also available in lead free version

MECHANICAL DATA

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Marking: BAT42WS:S7, BAT43WS:S8

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum ratings and electrical characteristics, Single diode @ $T_A=25^\circ\text{C}$

PARAMETER	SYMBOLS	BAT42WS/BAT43WS	UNITS
Peak repetitive peak reverse voltage	V_{RRM}	30	VOLTS
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 @ <1.0s	I_{FRM}	500	mA
Peak forward surge current @ <10ms	I_{FSM}	4.0	A
Power dissipation	P_d	200	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	625	K/W
Storage temperature	T_{STG}	-55 to +125	$^\circ\text{C}$

Electrical ratings @ $T_A=25^\circ\text{C}$

PARAMETER	SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	V_{BR}	30			V	$I_R=10\mu\text{A}$
Forward voltage	V_F			1.0	V	$I_F=200\text{mA}$
	V_F			0.4	V	$I_F=10\text{mA}$
	V_F			0.65	V	$I_F=50\text{mA}$
	V_F	0.26		0.33	V	$I_F=2\text{mA}$
	V_F			0.45	V	$I_F=15\text{mA}$
Reverse current	I_R			0.5	μA	$V_R=25\text{V}$
Capacitance between terminals	C_T			10	pF	$V_R=1\text{V}, f=1.0\text{MHz}$
Reverse recovery time	t_{rr}			5	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

MDD ELECTRONIC

RATINGS AND CHARACTERISTIC CURVES BAT42WS/BAT43WS

