

**SOD-323 Plastic-Encapsulate Diodes****BAT42WS/BAT43WS** SCHOTTKY DIODES

SOD-323

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FEATURES

- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally Suited for Automatic Insertion
- Also Available in Lead Free Version

MARKING: BAT42WS S7
BAT43WS S8

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

Parameter	Symbol	BAT42WS/BAT43WS	Unit
Peak Repetitive Peak reverse voltage	V _{RRM}	30	V
Working Peak	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 @<10ms	I _{FSM}	4.0	A
Power Dissipation	P _d	200	mW
Thermal Resistance Junction to Ambient	R _{θJA}	625	K/W
Storage temperature	T _{STG}	-55~+125	°C

Electrical Ratings @T_A=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	V _{(BR)R}	30			V	I _R =100μA
Forward voltage	All Types			1.0	V	I _F =200mA
	BAT42WS			0.4	V	I _F =10mA
	BAT42WS			0.65	V	I _F =50mA
	BAT43WS	0.26		0.33	V	I _F =2mA
	BAT43WS			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} =0.1X I _R ,R _L =100Ω

Typical Characteristics

BAT42WS/BAT43WS

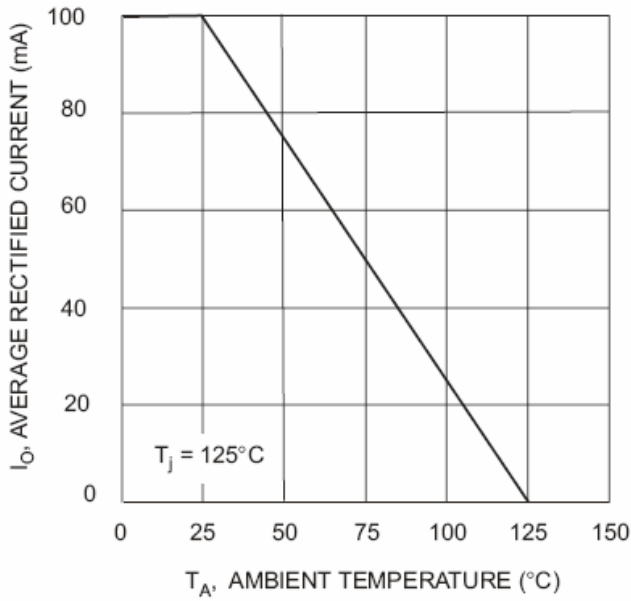


Fig. 1 Forward Current Derating Curve

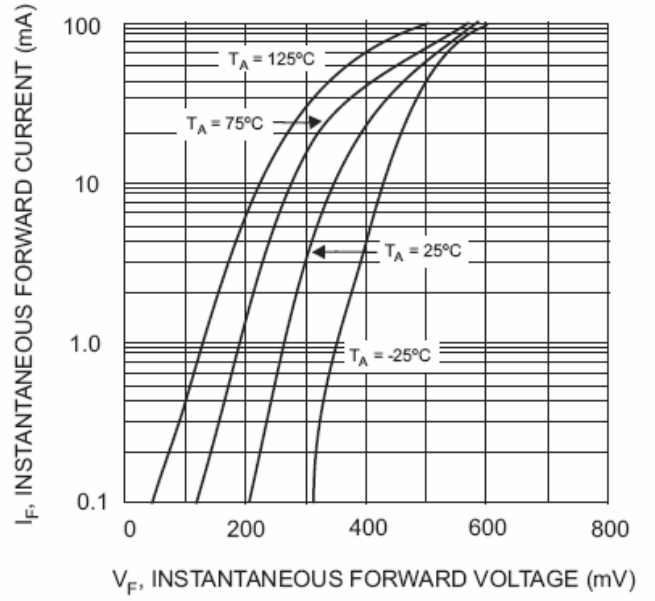


Fig. 2 Typical Forward Characteristics

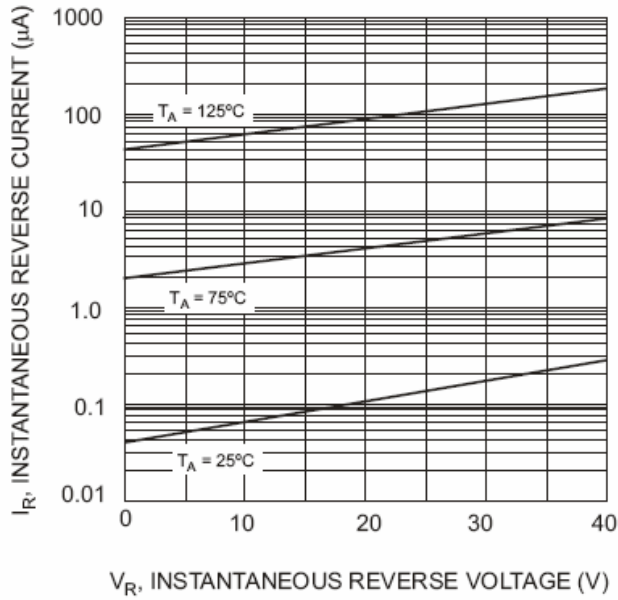


Fig. 3 Typical Reverse Characteristics

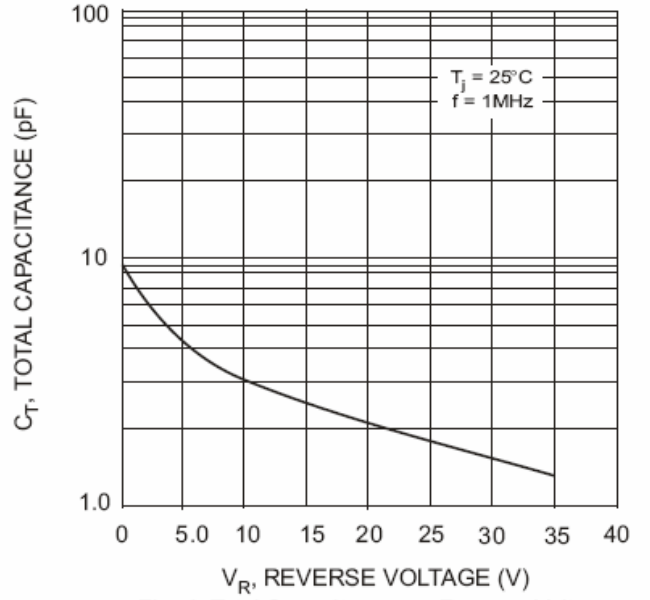


Fig. 4 Total Capacitance vs. Reverse Voltage