

SOD-323 Plastic-Encapsulate Diode

BAS70WS SCHOTTKY BARRIER DIODE

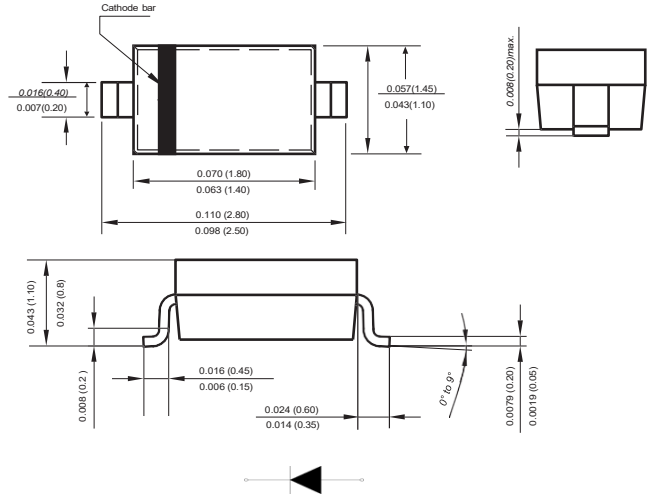
FEATURES

- Low power loss, high efficiency
- High current capability
- High surge capability
- Fast Switching Speed

Marking



SOD-323



Dimensions in inches and (millimeters)

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

Parameter	Symbo	Limit	Unit
Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	70	V
Average Rectified Output Current Ta=25°C	I_O	200	mA
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25	A
Power Dissipation	P_{TOT}	225	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=10\mu A$	70		V
Reverse voltage leakage current	I_R	$V_R=50V$ $V_R=70V$		0.1 1.0	μA
Forward voltage	V_F	$I_F=1mA$ $I_F=10mA$ $I_F=15mA$		0.47 0.75 1.0	V
Typical Junction Capacitance	C_J	$V_R=0, f=1MHz$		30	pF
Reveres recovery time	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1 \times I_R,$ $R_L=100\Omega$		6	ns

The above data are for reference only.

Typical Characteristics

Fig.1 Forward Current Derating Curve

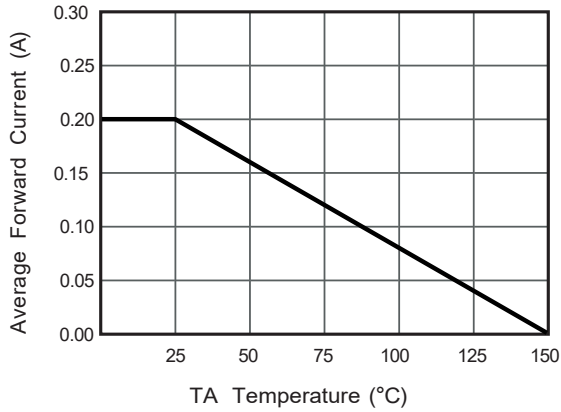


Fig.2 Typical Reverse Characteristics

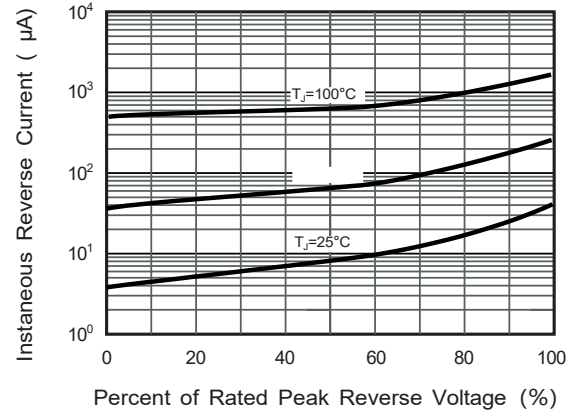


Fig.4 Typical Forward Characteristics

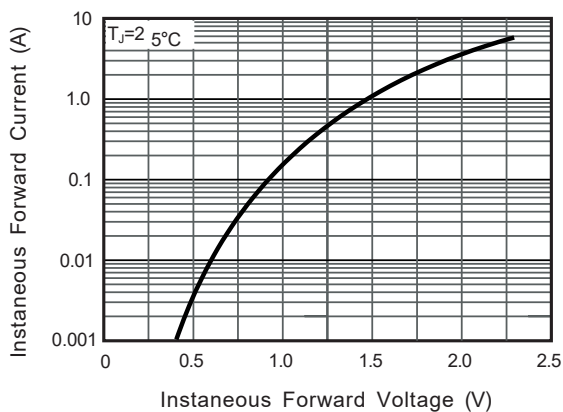


Fig.4 Typical Junction Capacitance

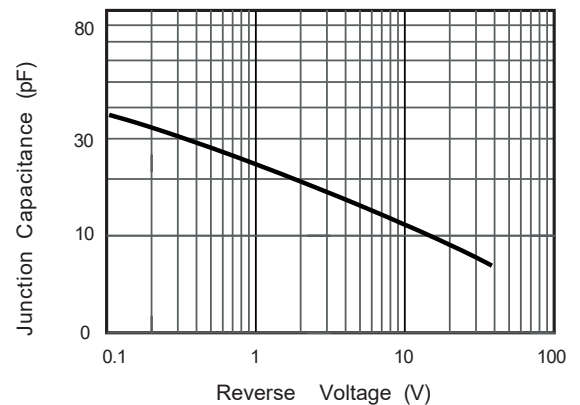


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

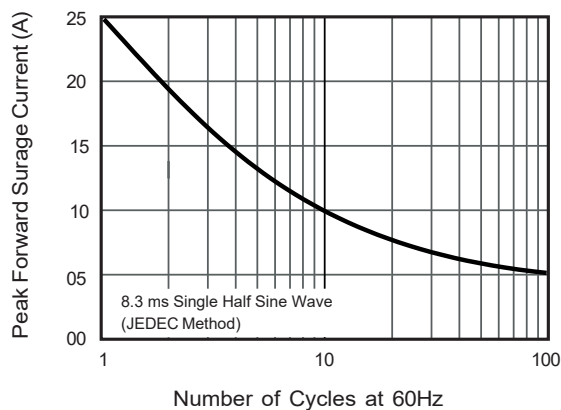
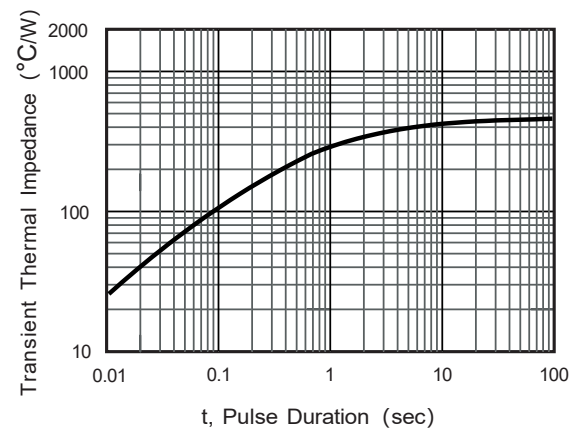


Fig.6 Typical Transient Thermal Impedance



The curve above is for reference only.