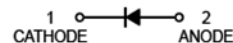


Schottky Barrier Diode



Features:

- Low Turn-On Voltage
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection



SOD-323

Applications:

Schottky barrier detector and switching diode

Max. Rating @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Limits	Unit
Peak repetitive peak reverse voltage Working peak reverse voltage DC reverse Voltage	V_{RRM} V_{RMS} V_R	30	V
RMS reverse voltage	$V_{R(RMS)}$	21	V
Average rectified output current	I_O	100	mA
Forward continuous current	I_F	200	mA
Repetitive peak forward current	I_{FRM}	300	mA
Forward surge current @ $t < 1.0s$	I_{FSM}	600	mA
Power dissipation	P_D	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +150	$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse breakdown voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	30	-	V
Forward voltage	V_{F1}	$I_F = 0.1\text{mA}$	-	240	mV
	V_{F2}	$I_F = 1\text{mA}$	-	320	mV
	V_{F3}	$I_F = 10\text{mA}$	-	400	mV
	V_{F4}	$I_F = 30\text{mA}$	-	500	mV
	V_{F5}	$I_F = 100\text{mA}$	-	1,000	mV
Reverse leakage current	I_R	$V_R = 25\text{V}$	-	2	μA
Reverse recovery time	t_{rr}	$I_F = 10\text{mA}$, $I_R = 10\text{mA}$ to 1mA $R_L = 100\Omega$	-	5	ns
Junction capacitance	C_J	$V_R = 1\text{V}$, $f = 1\text{MHz}$	-	10	pF

Schottky Barrier Diode



Typical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

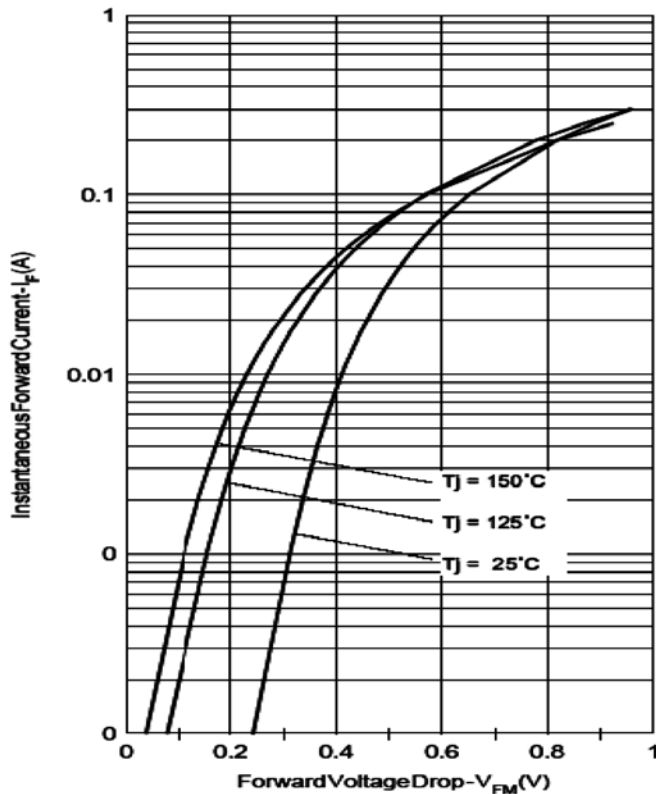


Fig. 1 - Max. Forward Voltage Drop Characteristics (Per Leg)

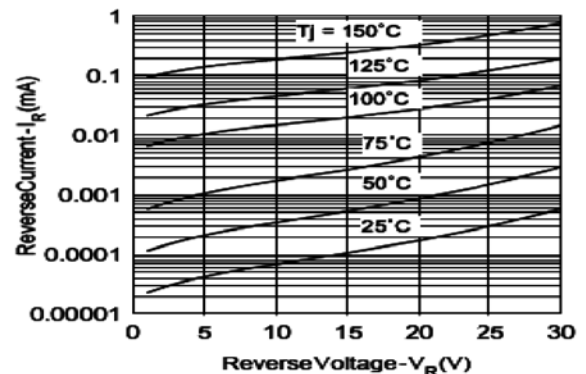


Fig. 2 - Typical Values Of Reverse Current Vs. Reverse Voltage (Per Leg)

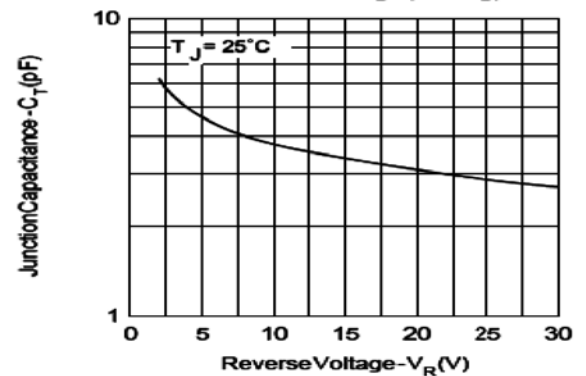


Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage (Per Leg)

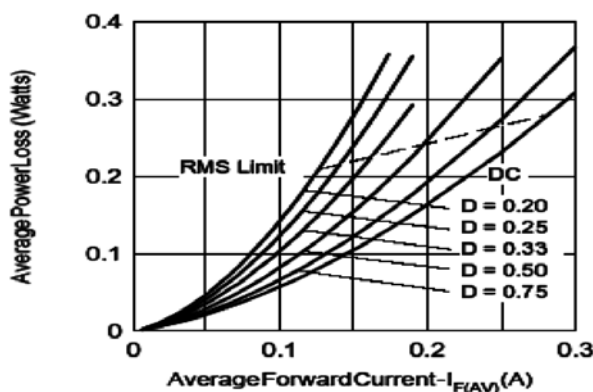


Fig. 4 - Forward Power Loss Characteristics

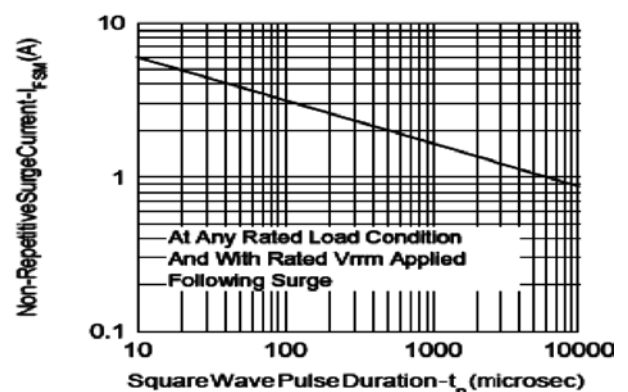
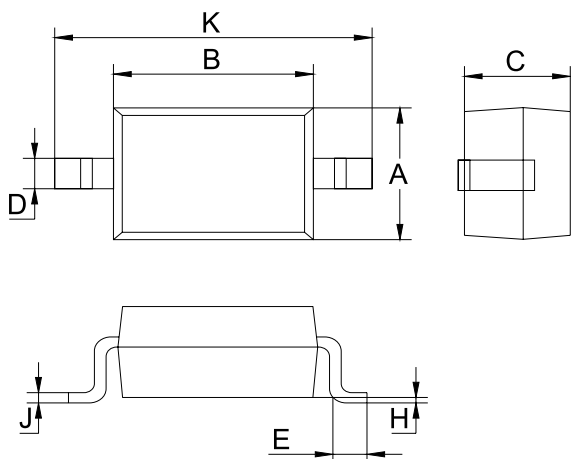


Fig. 5 - Max. Non-Repetitive Surge Current

Schottky Barrier Diode

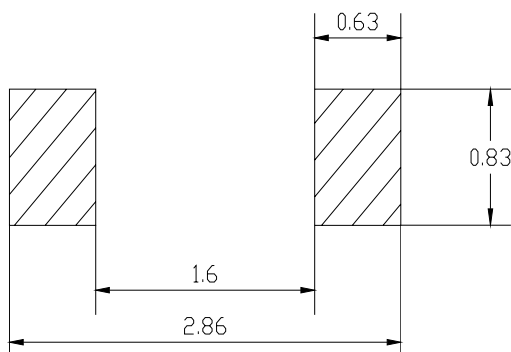


Plastic surface mounted package



SOD-323		
Dim	Min	Max
A	1.275	1.325
B	1.675	1.725
C	0.9 Typical	
D	0.25	0.35
E	0.27	0.37
H	0.02	0.1
J	0.1 Typical	
K	2.6	2.7
All Dimensions in mm		

Soldering Footprint



Unit : mm

Package Information

Device	Package	Shipping
BAT54WS-7-F	SOD-323	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Schottky Barrier Diode	BAT54WS-7-F

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