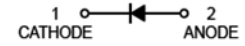


Schottky Barrier Diode



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°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 _{θJA}	500	°C/W
Junction temperature	T _j	125	°C
Storage temperature range	T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse breakdown voltage	V _{(BR)R}	I _R = 100μA	30	-	V
Forward voltage	V _{F1}	I _F = 0.1mA	-	240	mV
	V _{F2}	I _F = 1mA	-	320	mV
	V _{F3}	I _F = 10mA	-	400	mV
	V _{F4}	I _F = 30mA	-	500	mV
	V _{F5}	I _F = 100mA	-	1,000	mV
Reverse leakage current	I _R	V _R = 25V	-	2	μA
Reverse recovery time	t _{rr}	I _F = 10mA, I _R = 10mA to 1mA R _L = 100Ω	-	5	ns
Junction capacitance	C _J	V _R = 1V, f = 1MHz	-	10	pF

Schottky Barrier Diode



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

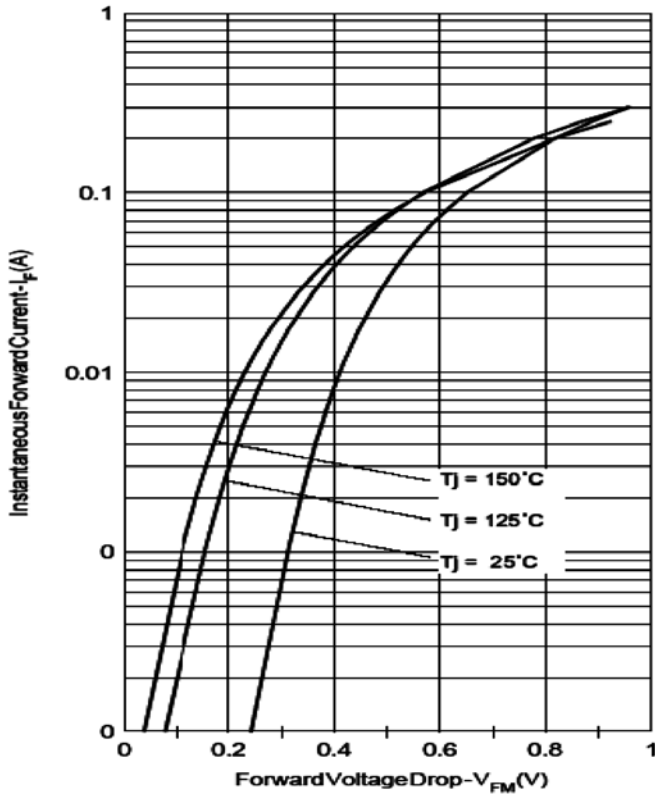


Fig. 1 - Max. Forward Voltage Drop Characteristics (Per Leg)

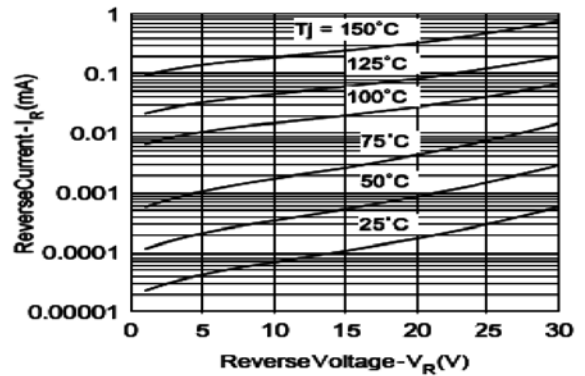


Fig. 2 - Typical Values Of Reverse Current Vs. Reverse Voltage (Per Leg)

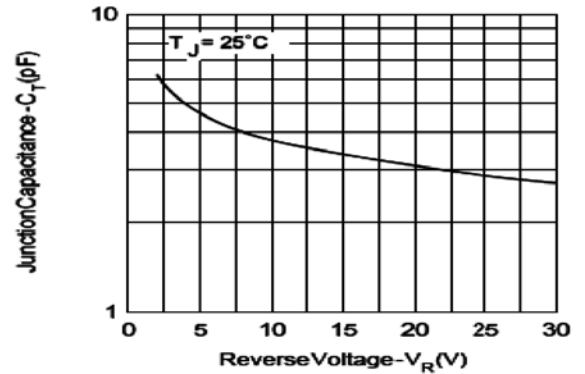


Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage (Per Leg)

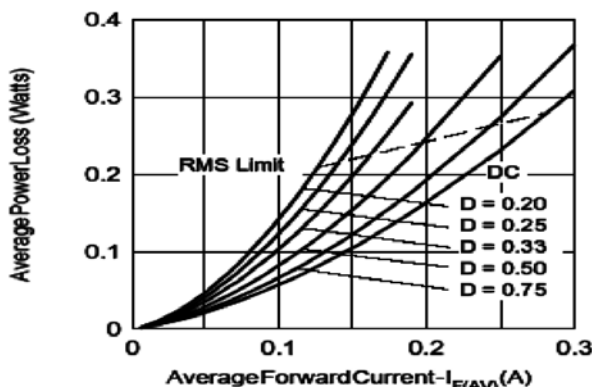


Fig. 4 - Forward Power Loss Characteristics

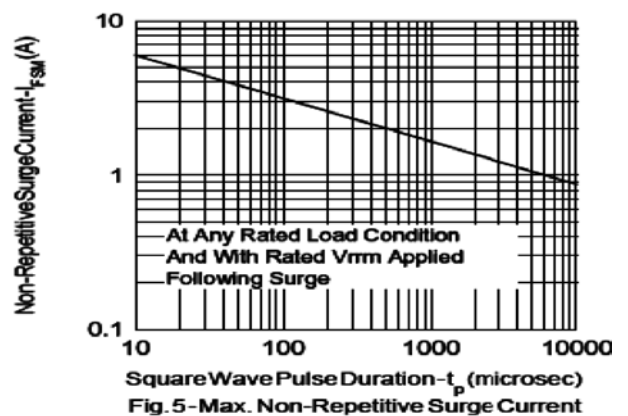


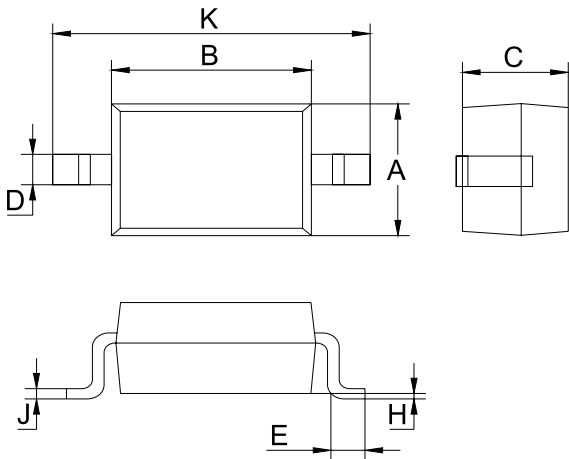
Fig. 5 - Max. Non-Repetitive Surge Current



Schottky Barrier Diode

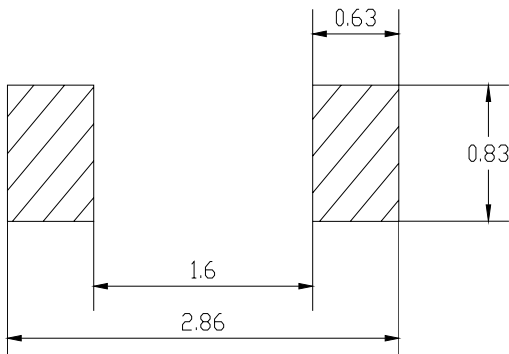


Plastic surface mounted package



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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