

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low Diode Capacitance
- Low Diode Forward Resistance

MARKING

A81

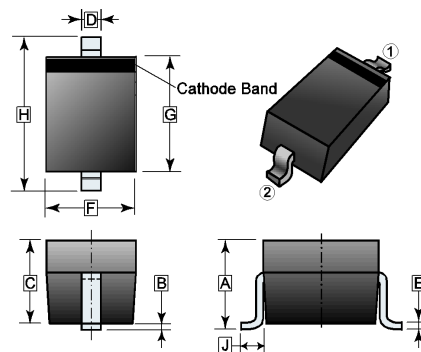
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-323	3K	7 inch

ORDER INFORMATION

Part Number	Type
BAP50W-03-C	Lead (Pb)-free and Halogen-free

SOD-323



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.05 REF.		F	1.10	1.50
B	0.07 REF.		G	1.50	1.95
C	0.80	1.10	H	2.30	2.80
D	0.25	0.40	J	0.475 REF.	
E	0.05	0.25			

MAXIMUM RATINGS (Single diode @ $T_A=25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Continuous Reverse Voltage	V_R	50	V
Continuous Forward Current	I_F	50	mA
Power Dissipation	P_D	200	mW
Thermal Resistance, Junction-Ambient	$R_{\theta JA}$	85	$^\circ\text{C/W}$
Junction, Storage Temperature Range	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

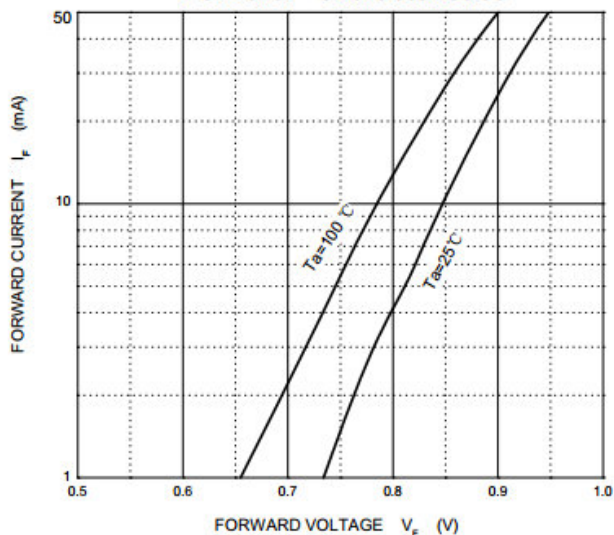
Parameters	Symbol	Min.	Max.	Unit	Test Conditions
Continuous Reverse Voltage	V_R	50	-	V	$I_R=10\mu\text{A}$
Forward Voltage	V_F	-	1.1	V	$I_F=50\text{mA}$
Reverse Current	I_R	-	100	nA	$V_R=50\text{V}$
Diode Capacitance	C_{D1A}	-	0.91	pF	$V_R=0, f=1\text{MHz}$
	C_{D1B}	-	1.11		$V_R=0, f=1\text{MHz}$
	C_{D2}	-	0.55		$V_R=1\text{V}, f=1\text{MHz}$
	C_{D3}	-	0.35		$V_R=5\text{V}, f=1\text{MHz}$
Diode Forward Resistance ¹	R_D	-	40	Ω	$I_F=0.5\text{mA}, f=100\text{MHz}$
		-	25		$I_F=1\text{mA}, f=100\text{MHz}$
		-	5		$I_F=10\text{mA}, f=100\text{MHz}$

Note:

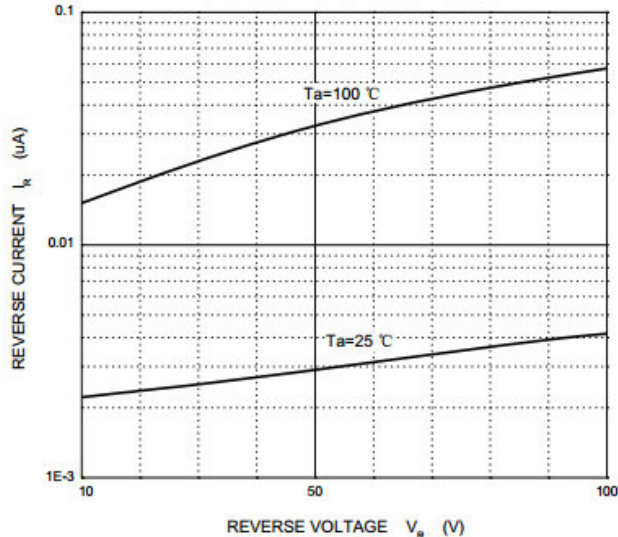
1. Guaranteed on AQL basis: inspection level S4, AQL 1.0.

RATINGS AND CHARACTERISTIC CURVES

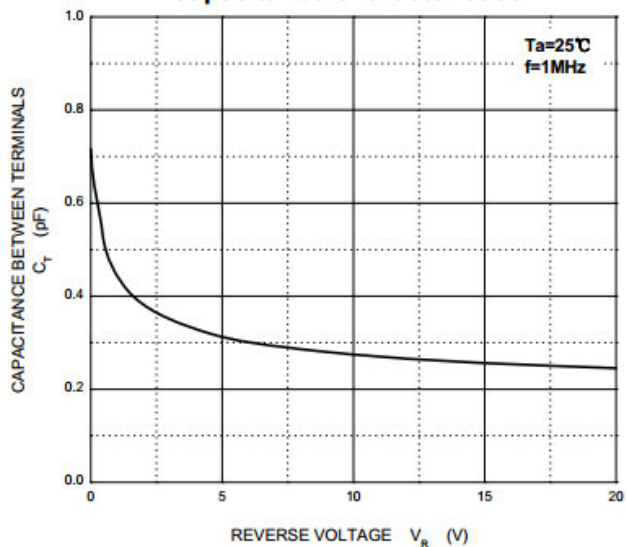
Forward Characteristics



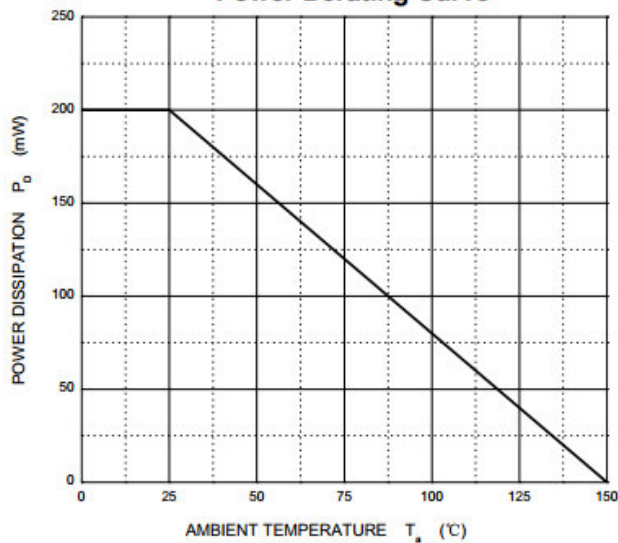
Reverse Characteristics



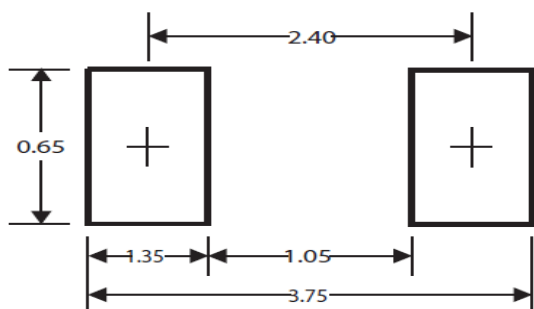
Capacitance Characteristics



Power Derating Curve



Mounting Pad Layout



*Dimensions in millimeters