SPECIFICATION SHEET

SMD SCHOTTKY BARRIER DIODES CASE SOD-323 BAS SERIES

SPECIFICATION SHEET NO.	S0510 – BAS3160000S0A6	
ORIGINAL MFG/PART NO.	MDD Diodes/BAS316	
NEXTGEN PART CODE	BAS3160000S0A6	Indicate This Code For RFQ /Order
DATE	May. 10, 2025	
REVISION	A3	Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	SMD Schottky Barrier Diodes, Case SOD-323 BAS Series, 2 Pads Peak Repetitive Peak Reverse Voltage (V_{RWM}): 85V Max. Non-repetitive Peak Forward Surge Current (I_{FSM}): 0.50A Max.@1s Operating and Storage Temperature Range (T_J, T_{STG}): -55°C ~+150°C Package in Tape/Reel, 3000pcs/Reel RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF)	
CUSTOMER		
CUSTOMER PART NUMBER		
CROSS REF. PART NUMBER		
MEMO		

VENDOR APPROVE			
Issued/Checked/Approved	Mandy Xu	Ruby Zhang	Jack Zhang
Effective Date: May. 10, 2025			

CUSTOMER APPROVE
Date:

MAIN FEATURE

Image shown is a representation only. Exact specifications should be obtained from the product dimension.

- Fast Reverse Recovery Time
- Case Type SOD-323
- Ideal For Automated Placement
- Meet MSL 1 Requirement
- Cross Competitors Parts and More.
- RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF)

APPLICATION

- For Surface Mounted Applications

ELECTRICAL CHARACTERISTICS

- See Page 5 ~ Page 6.
- All Products Parameters are Subject To NextGen Components' Final Confirmation.

HOW TO ORDER

- Please Follow Up Part Code Guide And Indicate NextGen Part Code BAS3160000S0A6 For RFQ and Order.

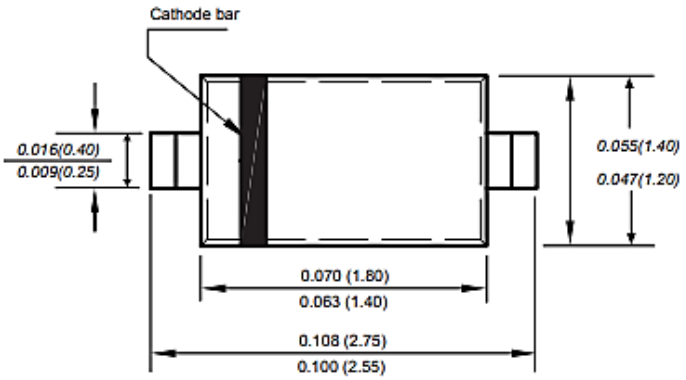
PART CODE GUIDE

RFQ
Request For Quotation

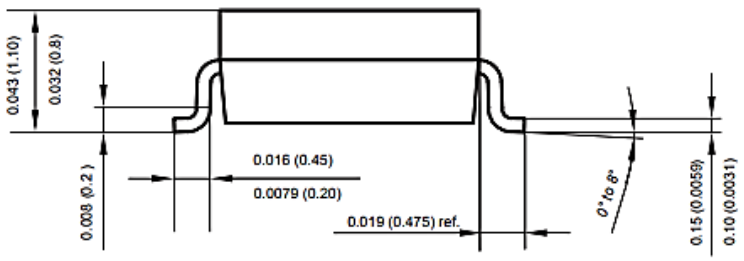
CODE	NAME	KEY SPECIFICATION OPTION
BAS	Product Series Code	SMD Schottky Barrier Diodes, 2 Pads
316	Parameters Code	Letter or Digits (A~Z, a~z or 0~9)
0000S0	Internal Control Code	Letter or Digits (A~Z, a~z or 0~9)
A6	Marking Code	Marking “A6”
XX	Special/Custom Parameters Code	Letter or Digits (A~Z, a~z or 0~9) for Special Parametric; Blank: N/A

DIMENSION - Unit: mm, Case SOD-323, Inch/mm

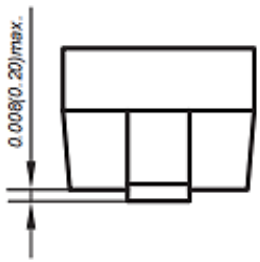
Top View



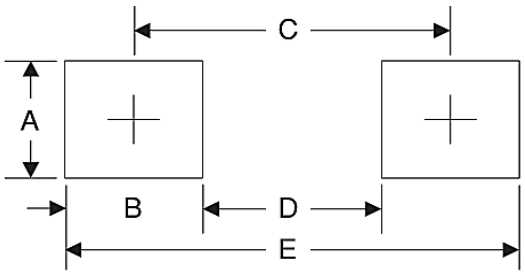
Side View



Side View



Recommend Pad Layout - Tolerance: ±0.05mm



SYMBOL	UNIT (INCH)	UNIT (MM)
A	0.047	1.2
B	0.047	1.2
C	0.102	2.6
D	0.055	1.4
E	0.149	3.8

MECHANICAL CHARACTERISTICS

CASE	FLAMMABILITY RATING	TERMINALS	MARKING
JEDEC SOD-323 molded plastic body	UL 94V-0	Solder plated, solderable per MIL-STD-750,Method 2026	A6

ABSOLUTE MAX. RATING - T_A=25°C unless otherwise specified, For Reference Only

PARAMETER		SYMBOLS	VALUE	UNITS
Peak Repetitive Peak Reverse Voltage		V_{RRM}	85	V
Peak Repetitive Peak Reverse Voltage		V_{RMS}	75	V
Average Rectified Output Current Ta=25℃		I_F	250	mA
Non-Repetitive Peak Forward Surge Current	at 1s	I_{FSM}	0.5	A
	at 1ms		1	
	at 1us		4	
Repetitive Peak Forward Current		I_{FRM}	500	mA
Power Dissipation		P_{TOT}	400	mW
Operating and Storage Temperature Range		T_J,T_{STG}	-55 ~+ 150	°C

CHARACTERISTICS- T_A=25℃ unless otherwise specified, For Reference Only

PARAMETER	TEST CONDITIONS	SYMBOLS	VALUE	UNITS
Reverse Voltage Leakage Current	V_R=25V, T_j=25℃	I_R	0.03	μA
	V_R=75V, T_j=25℃		1.0	
	V_R=25V, T_j=150℃		30	
	V_R=75V, T_j=150℃		50	
Forward Voltage	IF= 1mA	V_F	0.715	V
	IF=10mA		0.855	
	IF=50mA		1.00	
	IF=150mA		1.25	
Typical Junction Capacitance	VR=0, f=1MHz	C_J	2	pF
Reverse Recovery Time	I_F=I_R=10mA,Irr=0.1×I_R, R_L=100Ω	t_{rr}	4	ns

RATINGS AND CHARACTERISTICS CURVES- For Reference Only, Ta=25℃ Unless Otherwise Specified.

Fig.1 Power Derating Curve

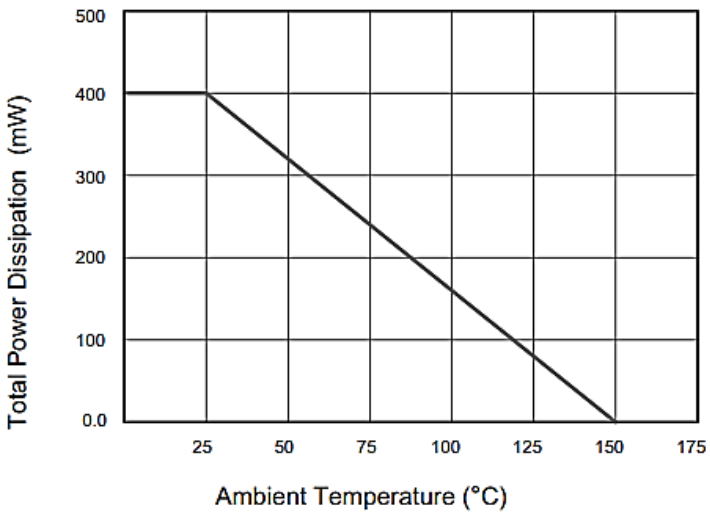
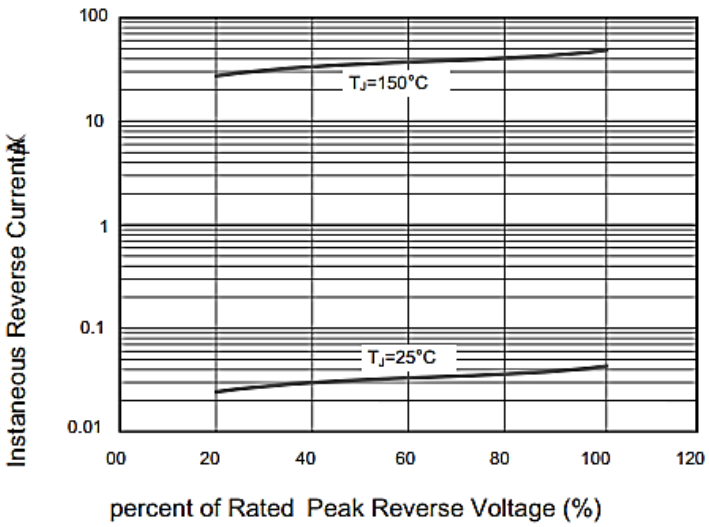


Fig.2 Typical Reverse Characteristics



RATINGS AND CHARACTERISTICS CURVES- For Reference Only, Ta=25℃ Unless Otherwise Specified.

Fig.3 Typical Instaneous Forward Characteristics

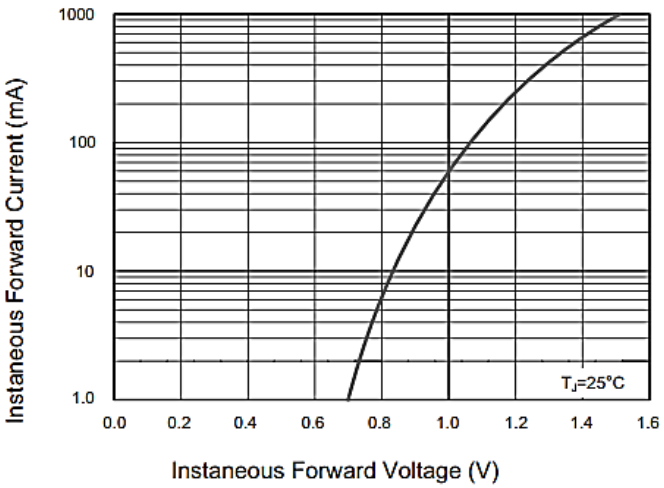
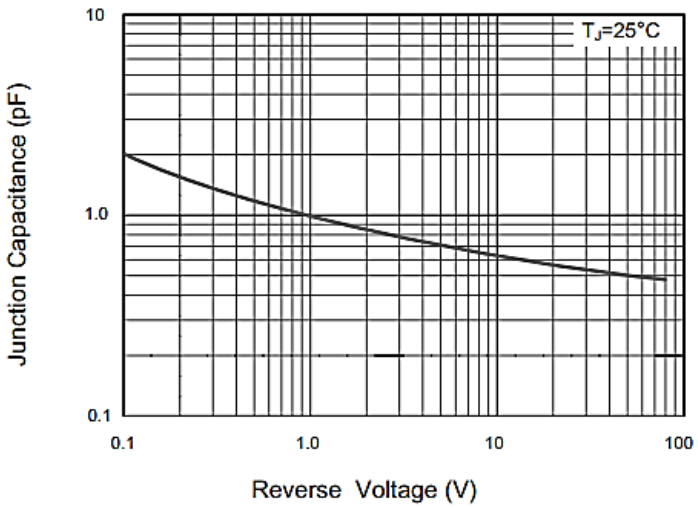
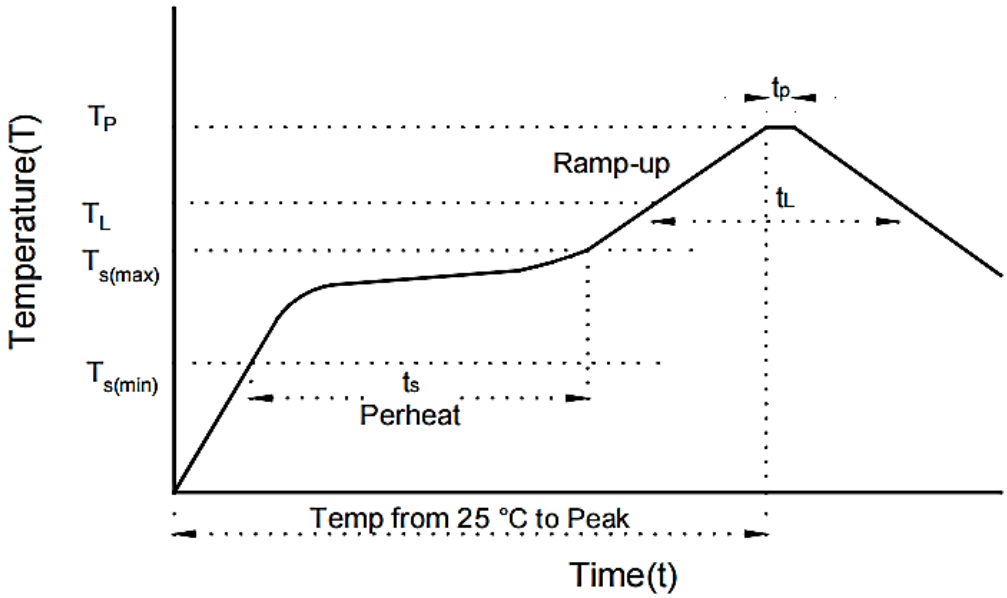


Fig.4 Typical Junction Capacitance

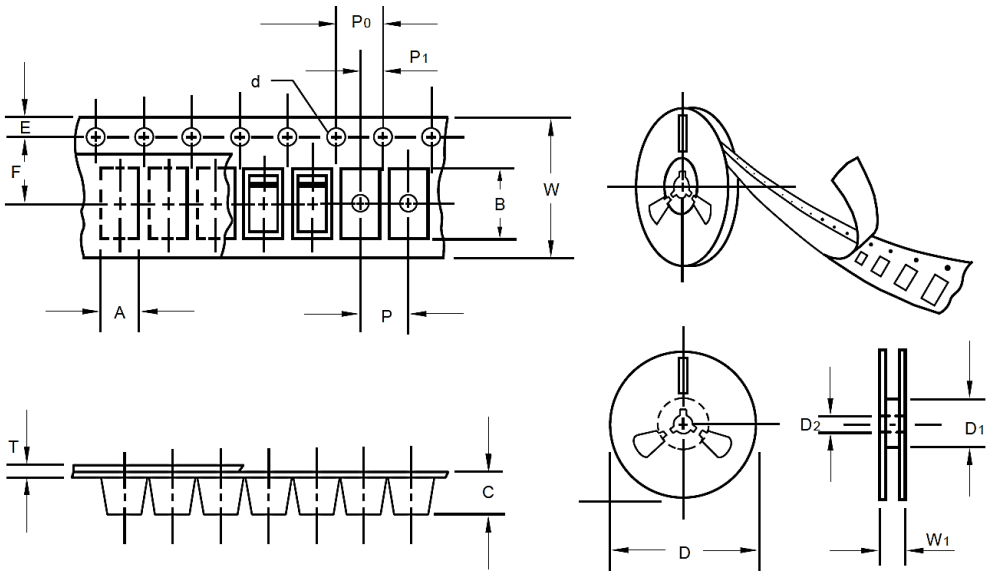


SUGGESTED REFLOW PROFILE - For Reference Only



PROFILE FEATURE		PB-FREE ASSEMBLY
Average Ramp-up Rate (T_L Max to T_p)		3°C/second Max
Preheat	Temperature Min (T_s Min.)	150°C
	Temperature Max (T_s Max.)	200°C
	Time (t_s Min. to t_s Max.)	60 ~ 180 seconds
Time maintained above	Temperature (T_L)	217°C
	Time (t_L)	60 ~ 150 seconds
Peak/Classification Temperature (T_p)		260 °C
Time within 5°C of actual Peak Temperature (t_p)		10 seconds Max.
Ramp-down Rate		6 °C /Second Max.
Time 25 °C to Peak Temperature		8 Minutes Max.
Suggest reflow times		3 Times Max.

TAPE/REEL - Unit: mm, All Devices are packed in accordance with EIA standard RS-481-A and specifications



ITEM	SYMBOL	TOLERANCE	SOD-323
Carrier width	A	0.1	1.46
Carrier Length	B	0.1	2.90
Carrier Depth	C	0.1	1.25
Sprocket hole	d	0.05	1.50
7”Reel outside diameter	D	2	178
7”Reel inner diameter	D1	Min.	54.40
Feed hole diameter	D2	0.5	13
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.5
Punch hole pitch	P	0.1	4
Sprocket hole pitch	P0	0.1	4
Embossment center	P1	0.1	2
Overall tape thickness	T	0.1	0.06
Tape width	W	0.3	8.00
Reel width	W1	1	12.30
Qty. Per Reel (pcs)	3000		

IMPORTANT NOTES AND DISCLAIMER

1. ROHS COMPLIANCE: The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU RoHS Directive (EU) 2015/863 EC (RoHS3). RoHS Test Report for this product can be obtained can be obtained at Download Center.
2. REACH COMPLIANCE: REACH substances of high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, REACH Test Report for this product can be obtained can be obtained at Download Center.
3. All Product parametric performance is indicated in the Electrical Characteristics for the listed herein test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.
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