





SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Leadless Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)
- Qualified to AEC-Q101 Standards for High Reliability

Mechanical Data

- Case: X1-DFN1006-2
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminal Connections: Cathode Dot
- Terminals: Finish NiPdAu annealed over Copper leadframe.
 Solderable per MIL-STD-202, Method 208 ⁶⁴
- Weight: 0.001 grams (approximate)

X1-DFN1006-2







Bottom View

Ordering Information (Note 4)

Part Number	Case	Packaging
BAS40LP-7	X1-DFN1006-2	3000/Tape & Reel

Notes:

- 1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
- 2. See http://www.diodes.com for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- 3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 4. For packaging details, go to our website at http://www.diodes.com.

Marking Information

43

43 = Product Type Marking Code Dot Denotes Cathode Side



Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	40	٧
Forward Continuous Current	I _{FM}	200	mA
Forward Surge Current @ t < 1.0s	I _{FSM}	600	mA

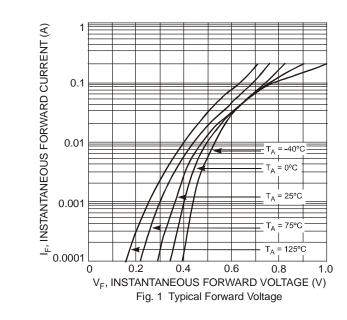
Thermal Characteristics

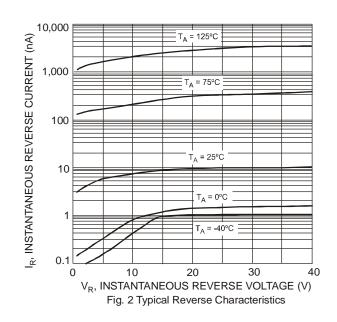
Characteristic	Symbol	Value	Unit
Power Dissipation	P _D	250	mW
Thermal Resistance, Junction to Ambient Air	$R_{ heta JA}$	400	°C/W
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

Electrical Characteristics (@TA = +25°C, unless otherwise specified.)

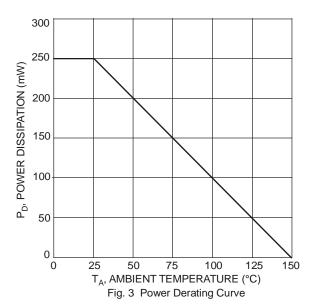
Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 5)	$V_{(BR)R}$	40			V	$I_R = 10\mu A$
Forward Voltage (Note 3)	V _F		_	380 1000	mv	$t_p < 300 \mu s$, $I_F = 1.0 mA$ $t_p < 300 \mu s$, $I_F = 40 mA$
Reverse Leakage Current (Note 5)	I _R	_	20	200	nA	$t_p < 300 \mu s, V_R = 30 V$
Total Capacitance	C _T		2.3	5.0	pF	$V_R = 0V$, $f = 1.0MHz$
Reverse Recovery Time	t _{rr}	_		5.0	ns	$I_F = I_R = 10 \text{mA}$ to $I_R = 1.0 \text{mA}$, $R_L = 100 \Omega$

Notes: 5. Short duration pulse test used to minimize self-heating effect.



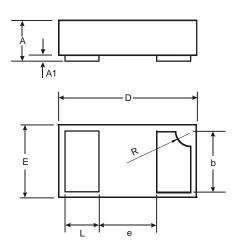






Package Outline Dimensions

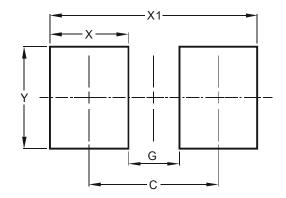
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.



X1-DFN1006-2					
Dim	Min	Max	Тур		
Α	0.47	0.53	0.50		
A1	0	0.05	0.03		
b	0.45	0.55	0.50		
D	0.95	1.075	1.00		
Е	0.55	0.675	0.60		
е	-	-	0.40		
L	0.20	0.30	0.25		
R	0.05	0.15	0.10		
All Dimensions in mm					

Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.



Dimensions	Value (in mm)
С	0.70
G	0.30
Х	0.40
X1	1.10
Υ	0.70



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многоканальный

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