



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



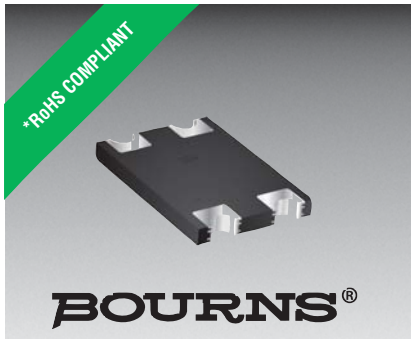
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Features

- RoHS compliant*
- Low power loss and high efficiency
- High current capability
- Low profile package



This series is currently available but not recommended for new designs. Bourns® Model CD-MBL1xxS Series is preferred.

CD2320-B1200~B11000 Surface Mount Bridge Rectifier Diode

General Information

The markets of portable communications, computing and video equipment are challenging the semiconductor industry to develop increasingly smaller electronic components.

Bourns offers Bridge Rectifier Diodes for rectification applications in compact chip package 2320 size format, which offers PCB real estate savings and are considerably smaller than most competitive parts. The Bridge Rectifier Diodes offer a forward current of 1 A with a choice of repetitive peak reverse voltages between 200 V and 1000 V.

Electrical Characteristics (@ T_A = 25 °C Unless Otherwise Noted)

Parameter	Symbol	CD2320-					Unit
		B1200	B1400	B1600	B1800	B11000	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	200	400	600	800	1000	V
Maximum Average Forward Rectified Current (T _A = 55 °C)	I _(AV)	1.0					A
DC Reverse Current @ Rated DC Blocking Voltage (T _J = 25 °C)	I _R	5					μA
DC Reverse Current @ Rated DC Blocking Voltage (T _J = 150 °C)	I _R	200					μA
Typical Junction Capacitance ¹	C _J	25					pF
Maximum Instantaneous Forward Voltage @ 1 A	V _F	1					V
Typical Thermal Resistance ¹	R _{θJL}	110					°C/W
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30					A

Notes:

¹ Measured @ 1.0 MHz and applied reverse voltage of 4.0 VDC.

² Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas.

Thermal Characteristics (@ T_A = 25 °C Unless Otherwise Noted)

Parameter	Symbol	CD2320-B1200-B11000	Unit
Operating Temperature Range	T _J	-55 to +175	°C
Storage Temperature Range	T _{STG}	-55 to +175	°C

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

Applications

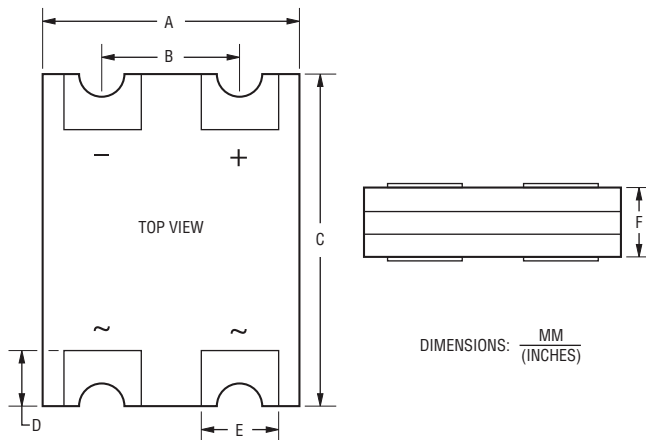
- AC operated products
- Computer monitors
- Set top boxes
- Cable modems

CD2320-B1200~B11000 Surface Mount Bridge Rectifier Diode

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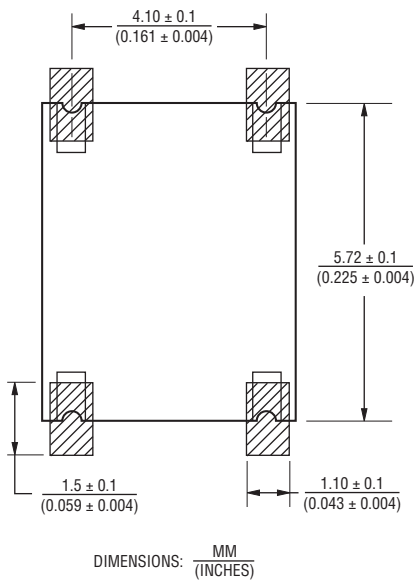
Product Dimensions

This is an RoHS2 compliant product, packaged with FRP substrate and epoxy underfilled. The terminals are pure tin plated (lead free) and solderable per MIL-STD-750, Method 2026. The package and dimensions are shown below.



Dimensions	
A	$\frac{5.20 - 5.40}{(0.205 - 0.213)}$
B	$\frac{4.10 - 4.30}{(0.161 - 0.169)}$
C	$\frac{5.70 - 5.90}{(0.224 - 0.232)}$
D	$\frac{1.00 - 1.20}{(0.039 - 0.047)}$
E	$\frac{0.85 - 0.95}{(0.033 - 0.037)}$
F	$\frac{0.86 - 1.16}{(0.0338 - 0.0457)}$

Recommended Footprint



How to Order

CD 2320 - B 1 800

Common Code _____
 Chip Diode _____

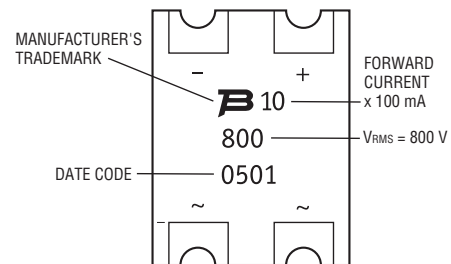
Package _____
 2320 = 23" x 20"

Model _____
 B = Schottky Rectifier Series

Current _____
 1 = 1 A

Working Peak Reverse Voltage _____
 800 = 800 V_{RWM} (Volts)

Typical Part Marking

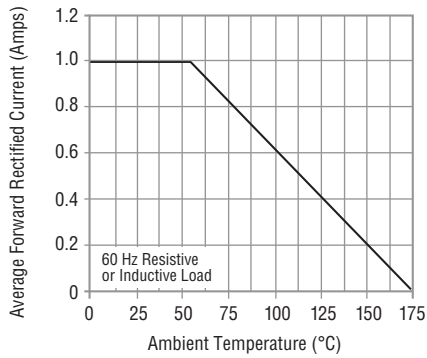


CD2320-B1200~B11000 Surface Mount Bridge Rectifier Diode

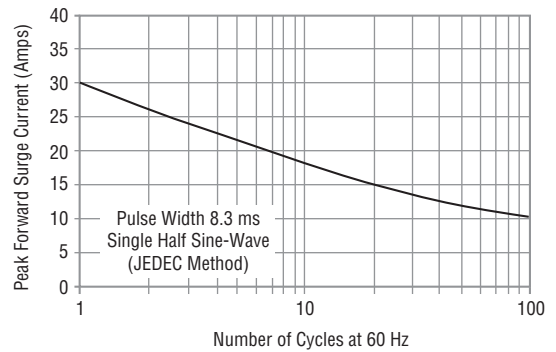


Rating and Characteristic Curves

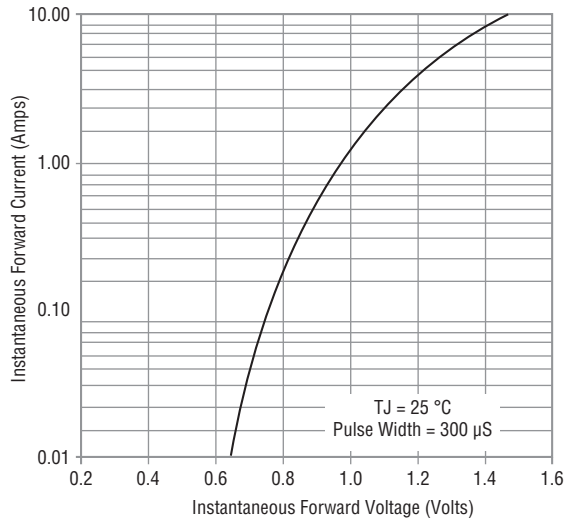
Forward Current Derating Curve



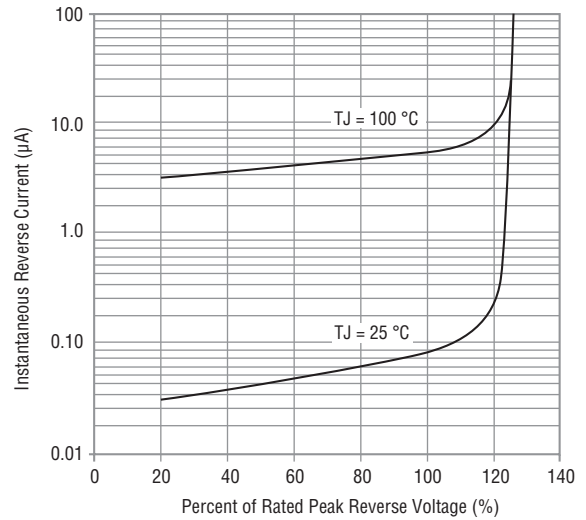
Maximum Non-Repetitive Peak Forward Surge Current



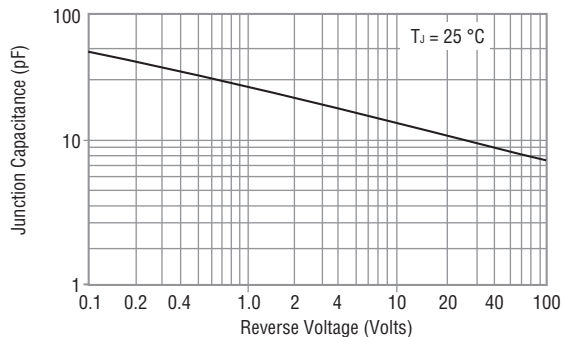
Forward Characteristics



Reverse Characteristics



Typical Junction Capacitance



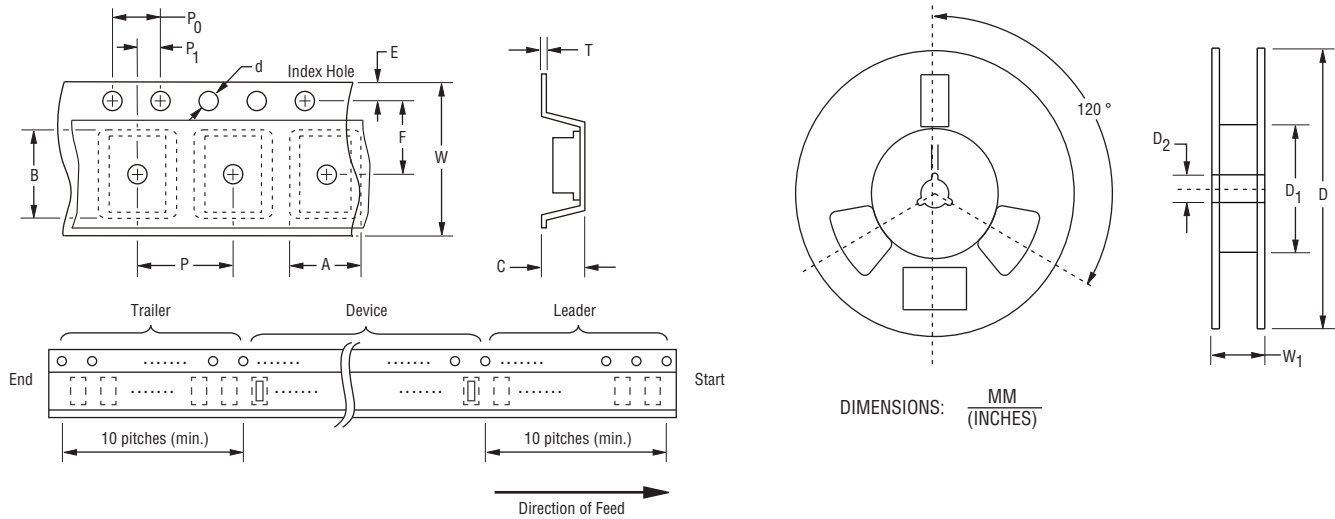
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CD2320-B1200~B11000 Surface Mount Bridge Rectifier Diode

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Packaging Information

The surface mount product is packaged in a 12 mm x 8 mm tape and reel format per EIA-481 standard.



Item	Symbol	2320
Carrier Width	A	$\frac{5.90 \pm 0.10}{(0.232 \pm 0.004)}$
Carrier Length	B	$\frac{6.50 \pm 0.10}{(0.256 \pm 0.004)}$
Carrier Depth	C	$\frac{1.50 \pm 0.10}{(0.059 \pm 0.004)}$
Sprocket Hole	d	$\frac{1.55 \pm 0.05}{(0.061 \pm 0.002)}$
Reel Outside Diameter	D	$\frac{330}{(12.992)}$
Reel Inner Diameter	D ₁	$\frac{50.0}{(1.969)}$ MIN.
Feed Hole Diameter	D ₂	$\frac{13.0 \pm 0.20}{(0.512 \pm 0.008)}$
Sprocket Hole Position	E	$\frac{1.75 \pm 0.10}{(0.069 \pm 0.004)}$
Punch Hole Position	F	$\frac{5.50 \pm 0.05}{(0.217 \pm 0.002)}$
Punch Hole Pitch	P	$\frac{8.00 \pm 0.10}{(0.315 \pm 0.004)}$
Sprocket Hole Pitch	P ₀	$\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$
Embossment Center	P ₁	$\frac{2.00 \pm 0.05}{(0.079 \pm 0.002)}$
Overall Tape Thickness	T	$\frac{0.20 \pm 0.10}{(0.008 \pm 0.004)}$
Tape Width	W	$\frac{12.00 \pm 0.20}{(0.472 \pm 0.008)}$
Reel Width	W ₁	$\frac{18.7}{(0.736)}$ MAX.
Quantity per Reel	--	5,000

REV. 03/17

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