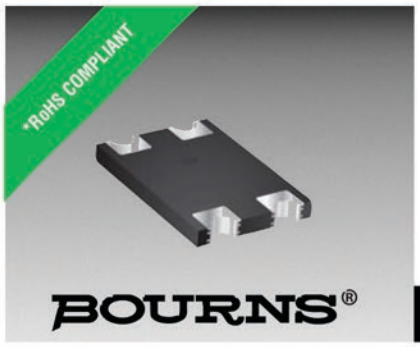


Features

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

This series is obsolete and not recommended for new designs.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]	$R_{\Theta JL}$	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

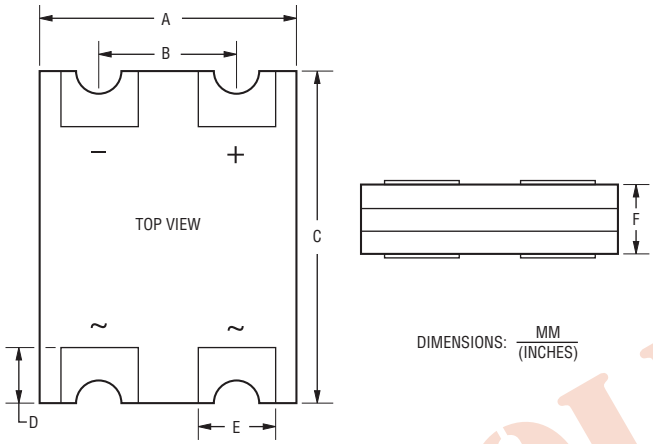
- AC operated products
- Computer monitors
- Set top boxes
- Cable modems

CD2320-B1200~B11000 Surface Mount Bridge Rectifier Diode

BOURNS®

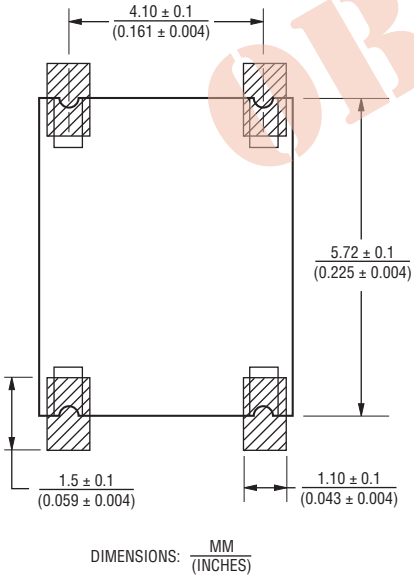
Product Dimensions

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

Recommended Footprint



How to Order

CD 2320 - B 1 800

Common Code
Chip Diode

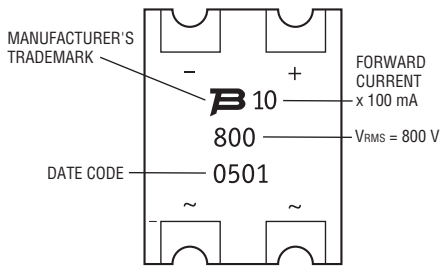
Package
2320 = 23 ″ x 20 ″

Model
B = Schottky Rectifier Series

Current
1 = 1 A

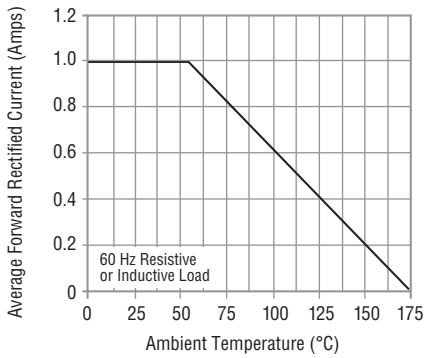
Working Peak Reverse Voltage
800 = 800 V_{RWM} (Volts)

Typical Part Marking

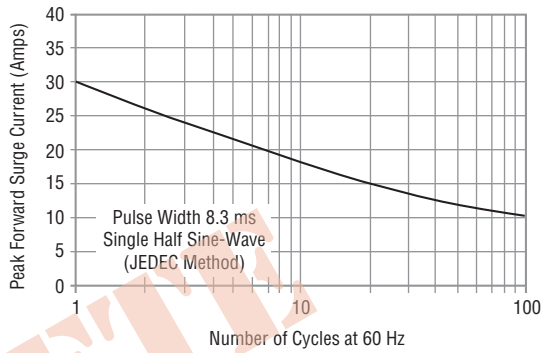


Rating and Characteristic Curves

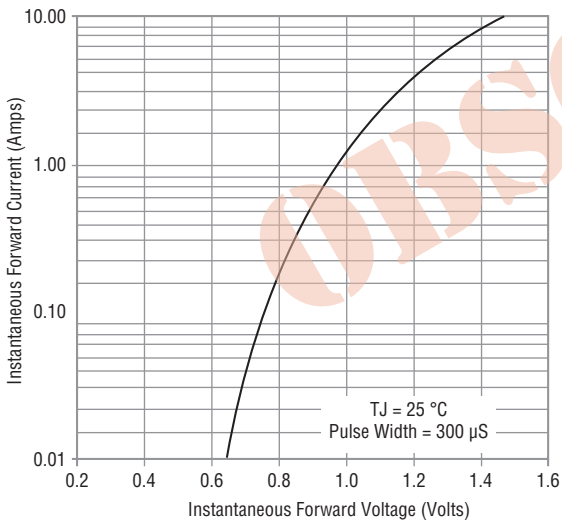
Forward Current Derating Curve



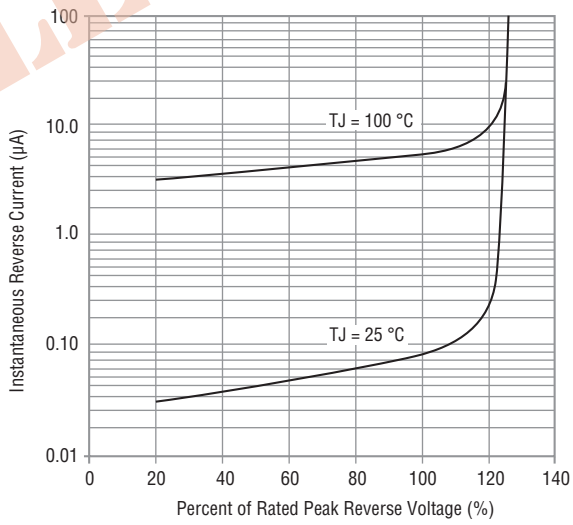
Maximum Non-Repetitive Peak Forward Surge Current



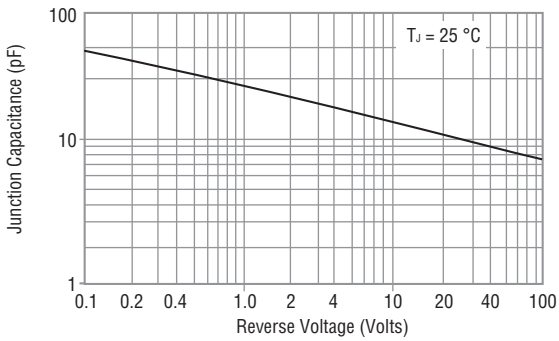
Forward Characteristics



Reverse Characteristics

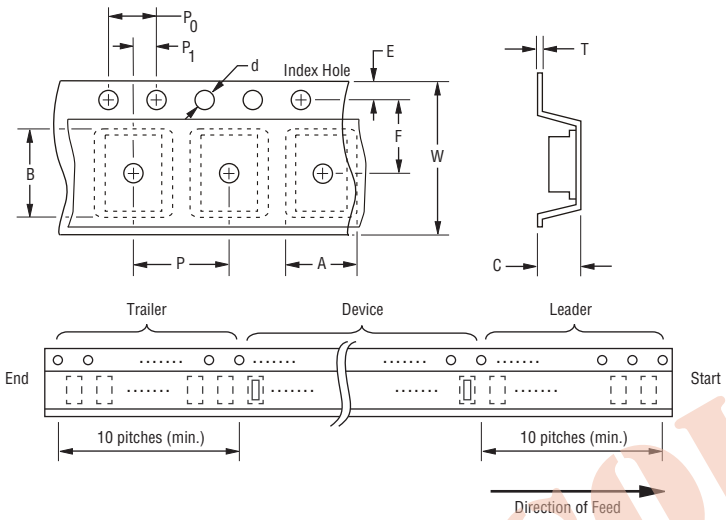


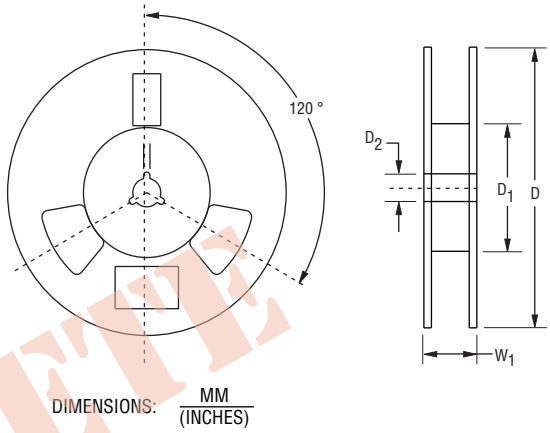
Typical Junction Capacitance



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	5.90 ± 0.10 (0.232 ± 0.004)
Carrier Length	B	6.50 ± 0.10 (0.256 ± 0.004)
Carrier Depth	C	1.50 ± 0.10 (0.059 ± 0.004)
Sprocket Hole	d	1.55 ± 0.05 (0.061 ± 0.002)
Reel Outside Diameter	D	330 (12.992)
Reel Inner Diameter	D_1	50.0 (1.969) MIN.
Feed Hole Diameter	D_2	13.0 ± 0.20 (0.512 ± 0.008)
Sprocket Hole Position	E	1.75 ± 0.10 (0.069 ± 0.004)
Punch Hole Position	F	5.50 ± 0.05 (0.217 ± 0.002)
Punch Hole Pitch	P	8.00 ± 0.10 (0.315 ± 0.004)
Sprocket Hole Pitch	P_0	4.00 ± 0.10 (0.157 ± 0.004)
Embossment Center	P_1	2.00 ± 0.05 (0.079 ± 0.002)
Overall Tape Thickness	T	0.20 ± 0.10 (0.008 ± 0.004)
Tape Width	W	12.00 ± 0.20 (0.472 ± 0.008)
Reel Width	W_1	18.7 (0.736) MAX.
Quantity per Reel	--	5,000