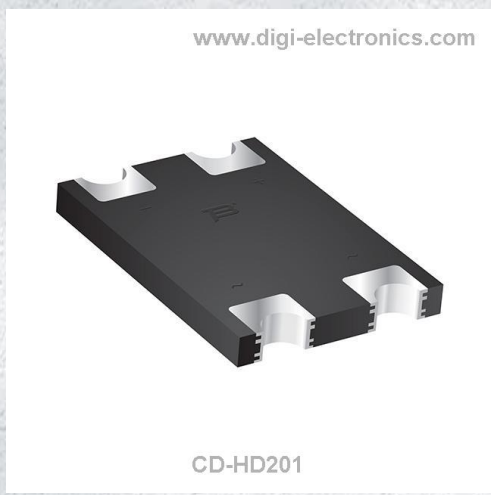
CD-HD201 Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	CD-HD201-DG
Manufacturer	Bourns Inc.
Manufacturer Product Number	CD-HD201
Description	BRIDGE RECT 1PHASE 100V 2A
Detailed Description	Bridge Rectifier Single Phase Schottky 100 V Surface Mount

Tel: +00 852-30501935

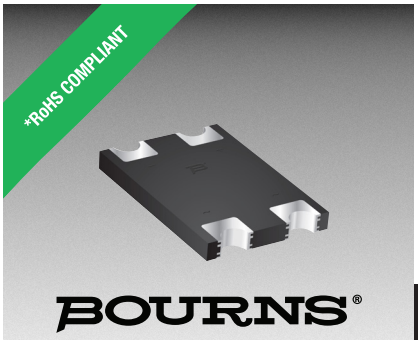
RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
CD-HD201	Bourns Inc.
Series:	Product Status:
-	Active
Diode Type:	Technology:
Single Phase	Schottky
Voltage - Peak Reverse (Max):	Current - Average Rectified (Io):
100 V	2 A
Voltage - Forward (Vf) (Max) @ If:	Current - Reverse Leakage @ Vr:
850 mV @ 1 A	100 µA @ 100 V
Operating Temperature:	Mounting Type:
-55°C ~ 125°C (TC)	Surface Mount
Package / Case:	Supplier Device Package:
Chip, Concave Terminals	-
Base Product Number:	
CD-HD	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Affected	EAR99
HTSUS:	
8541.10.0080	



Features

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

Applications

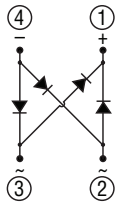
- AC operated products
- Computer monitors
- Set-top boxes
- Cable modems

CD-HD2x(L) Series Surface Mount Schottky 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 Schottky Bridge Rectifier Diodes for rectification applications in a compact chip package 0.24 ″ x 0.19 ″ size format, which offers PCB real estate savings and are considerably smaller than standard parts. The Schottky Bridge Rectifier Diodes offer a forward current of 2 A with a choice of repetitive peak reverse voltages between 40 V and 100 V.



Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Absolute Maximum Ratings (@ T_A = 25 °C Unless Otherwise Noted)

Parameter	Symbol	CD-				Unit
		HD2004	HD2006	HD201	HD2006L	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	60	100	60	V
Maximum Average Forward Rectified Current (T_A = 55 °C)	$I_{F(AV)}$	2.0				A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50.0				A
Operating Temperature Range	T_J	-55 to +125				°C
Storage Temperature Range	T_{STG}	-55 to +125				°C

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

Parameter	Symbol	CD-HD2x(L)					Unit
		Test Conditions		Min.	Typ.	Max.	
Instantaneous Forward Voltage	V_F	I_F = 2 A	CD-HD2004		0.49	0.5	V
			CD-HD2006		0.60	0.70	
			CD-HD201		0.75	0.85	
			CD-HD2006L		0.50	0.55	
Repetitive Peak Reverse Current	I_{RRM}	$V_R = V_{RRM}$ T_A = +25 °C	CD-HD2004		0.025	0.20	mA
			CD-HD2006		0.025	0.20	
			CD-HD201		0.025	0.20	
			CD-HD2006L		0.03	0.2	
Junction Capacitance	C_J	V_R = 4 V, f = 1.0 MHz	CD-HD2x(L)x			250	pF
Thermal Resistance, Junction to Air	$R_{th(JA)}$	Junction to Ambient (NOTE 1)	CD-HD2004		110		°C / W
			CD-HD2006		110		
			CD-HD201		110		
			CD-HD2006L		110		
Thermal Resistance, Junction to Lead	$R_{th(JC)}$	Junction to Lead (NOTE 1)	CD-HD2004		15		°C / W
			CD-HD2006		15		
			CD-HD201		15		
			CD-HD2006L		15		

NOTE 1: Measured when mounted on PCB with 5.0 mm x 5.0 mm (0.2 ″ x 0.2 ″) copper pad areas.

WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Applications

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

CD-HD2x(L) Series Surface Mount Schottky Bridge Rectifier Diode

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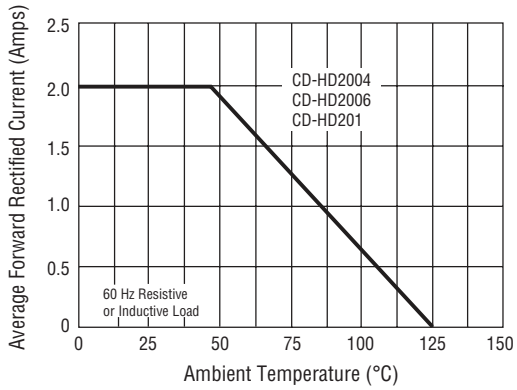
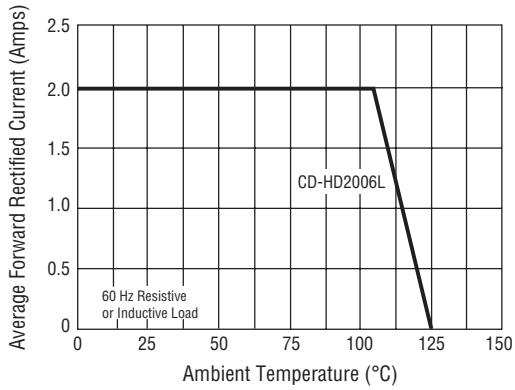
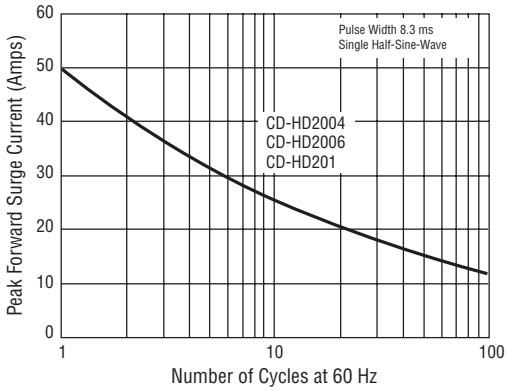
Rating and Characteristic Curves

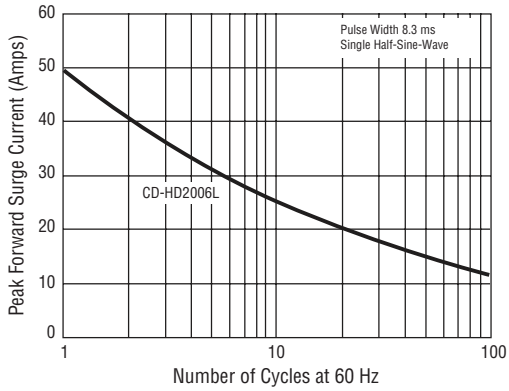
Forward Current Derating Curve



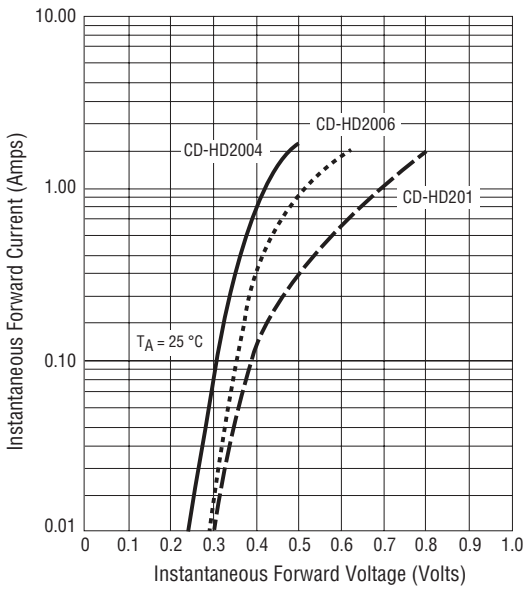


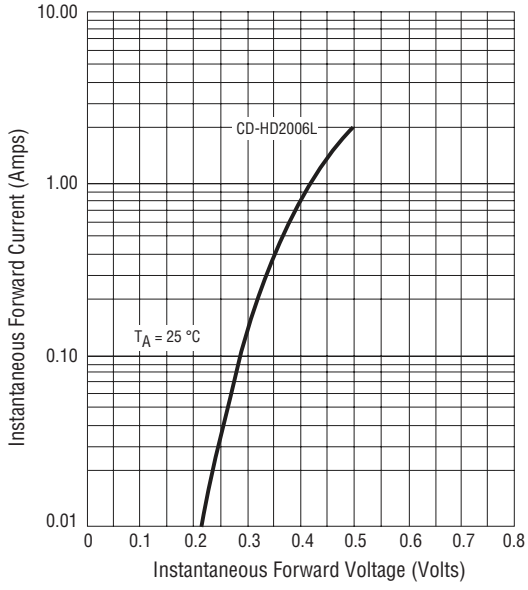
Maximum Non-Repetitive Peak Forward Surge Current





Forward Characteristics





CD-HD2x(L) Series Surface Mount Schottky Bridge Rectifier Diode

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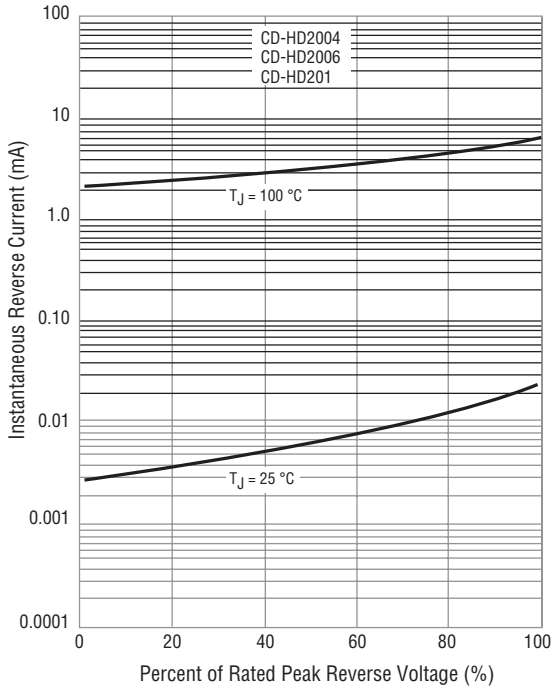
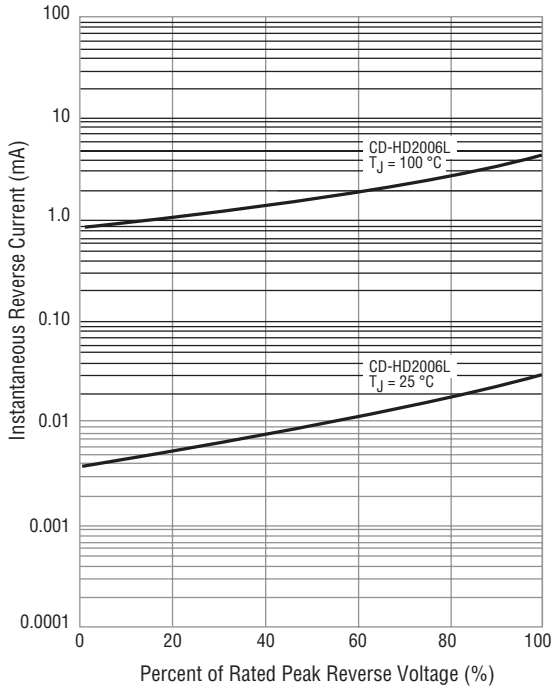
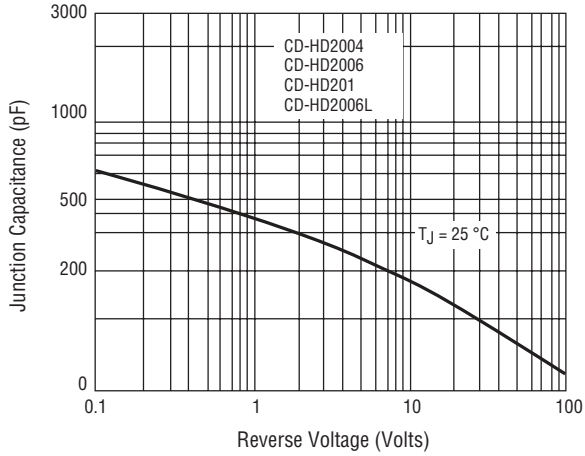
Rating and Characteristic Curves

Reverse Characteristics





Typical Junction Capacitance



CD-HD2x(L) Series Surface Mount Schottky Bridge Rectifier Diode

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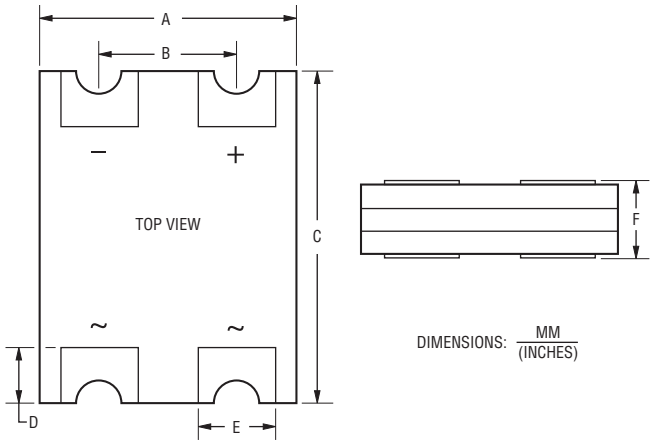
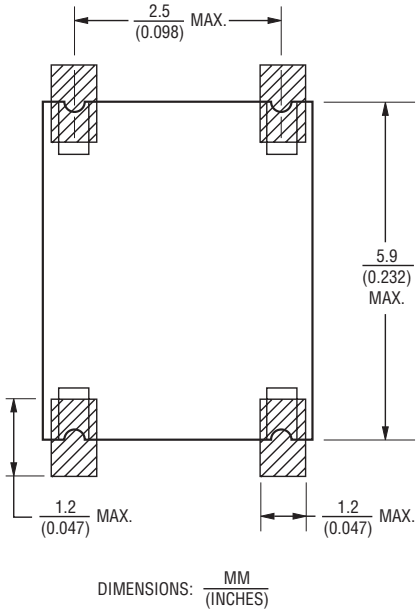
Product Dimensions

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



Dimensions	
A	4.65 - 4.85 (0.183 - 0.191)
B	2.49 - 2.59 (0.098 - 0.102)
C	6.05 - 6.25 (0.238 - 0.246)
D	1.35 - 1.45 (0.053 - 0.057)
E	0.95 - 1.05 (0.037 - 0.041)
F	0.92 - 1.22 (0.036 - 0.048)

Recommended Footprint



How to Order

CD - HD 2 004 L

Common Code
Chip Diode

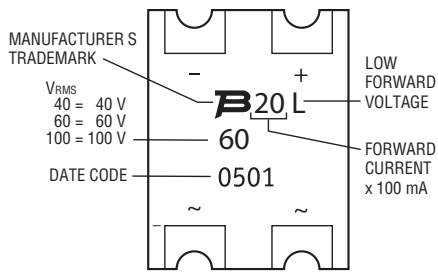
Package
HD = HD Bridge Series

Average Forward Current
2 = 2 A

Reverse Voltage
004 = 40 V
006 = 60 V
01 = 100 V

Forward Voltage Suffix
(blank) = Standard Forward Voltage
L = Low Forward Voltage

Typical Part Marking



CD-HD2x(L) Series Surface Mount Schottky Bridge Rectifier Diode

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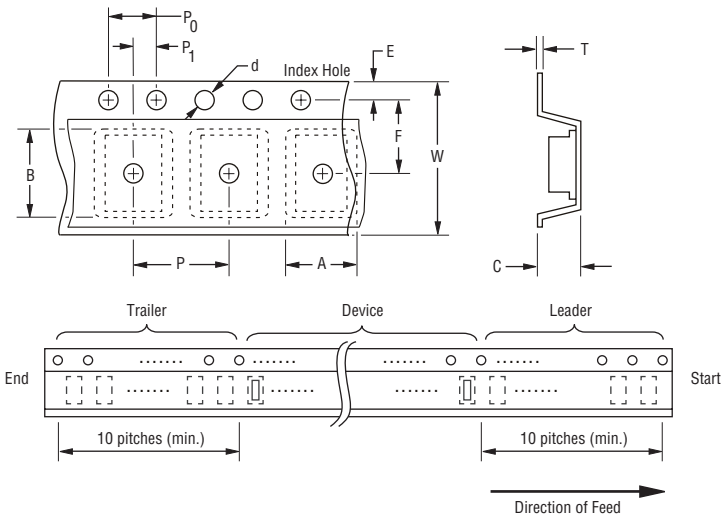
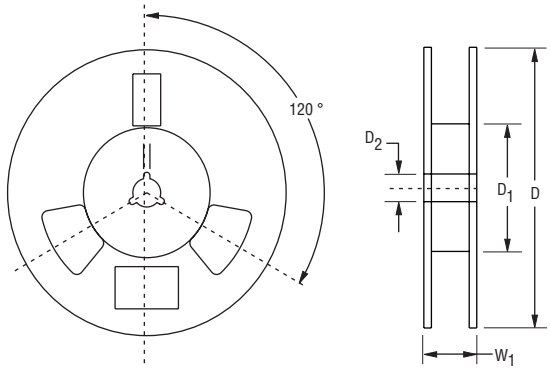
Packaging Information

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





DIMENSIONS: MM / (INCHES)

Item	Symbol	CD-HD2x(L)
Carrier Width	A	5.20 ± 0.30 (0.205 ± 0.012)
Carrier Length	B	6.60 ± 0.30 (0.260 ± 0.012)
Carrier Depth	C	1.65 ± 0.10 (0.065 ± 0.004)
Sprocket Hole	d	1.50 ± 0.10 (0.059 ± 0.004)
Reel Outside Diameter	D	330 (12.992)
Reel Inner Diameter	D_1	50.0 (1.969) MIN.
Feed Hole Diameter	D_2	13.0 ± 0.50 (0.512 ± 0.02)
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 ± 0.10 (0.079 ± 0.004)
Overall Tape Thickness	T	0.40 (0.016)
Tape Width	W	12.00 ± 0.30 (0.472 ± 0.012)
Reel Width	W_1	14.4 (0.567) MAX.
Quantity per Reel	--	5,000

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