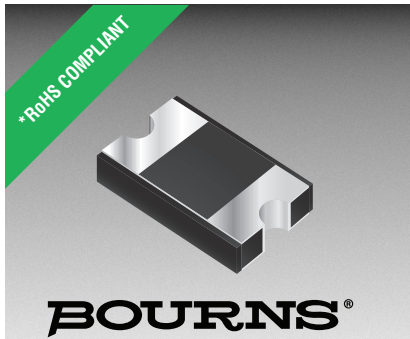




Features

- RoHS compliant*
- Low profile
- Low power loss, high efficiency
- UL 94V-0 classification

Applications

- Switch Mode Power Supplies
- Portable equipment batteries
- High frequency rectification
- DC/DC Converters
- Telecommunications

CD214B-B2xR Series Schottky Barrier Rectifier Chip Diode

General Information

Portable communications, computing and video equipment manufacturers are challenging the semiconductor industry to develop increasingly smaller electronic components.

Bourns offers Schottky Rectifier Diodes for rectification applications, in a compact chip package compatible with DO-214AA (SMB) size format, which offer PCB real estate savings and are considerably smaller than competitive parts. The Schottky Rectifier Diodes offer a forward current of 2 A with a choice of repetitive peak reverse voltage of 20 V up to 100 V.



Absolute Maximum Ratings (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

Parameter	Symbol	CD214B-				Unit
		B220R	B240R	B260R	B2100R	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	40	60	100	V
Maximum Average Forward Current	I _{F(AV)}	2				A
Maximum Peak Forward Surge Current (8.3 ms Single Half Sine-Wave)	I _{FSM}	50				A
Operating Junction Temperature Range	T _{OPR}	-55 to +125		-55 to +150		°C
Storage Temperature Range	T _{STG}	-55 to +150				°C

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

Parameter	Symbol	Condition or Model	Min.	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage (NOTE 1)	V_F	$I_F = 1\text{ A}$		0.41		V
		CD214B-B220R				
		CD214B-B240R				
		CD214B-B260R		0.5		
	$I_F = 2\text{ A}$	CD214B-B2100R		0.62		
		CD214B-B220R		0.49	0.5	
DC Reverse Current	I_R	CD214B-B240R		0.6	0.7	mA
		CD214B-B260R		0.75	0.85	
Typical Junction Capacitance	C_J	$V_R = V_{RRM}$		0.025	0.2	pF
Typical Thermal Resistance (NOTE 2)	Junction to Ambient	$R_{\theta JA}$		115		$^\circ\text{C/W}$
	Junction to Lead	$R_{\theta JL}$		65		
				17		

NOTES:

- (1) Pulse width 300 microsecond, 1 % duty cycle.
- (2) Mounted on PCB with 5.0 x 5.0 mm (0.2 x 0.2 inch) copper pad areas.

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

Specifications are subject to change without notice.

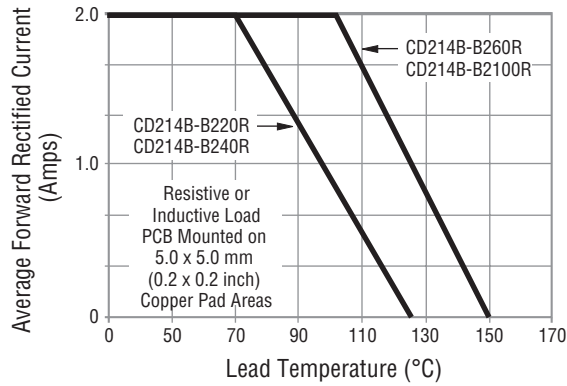
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

CD214B-B2xR Series Schottky Barrier Rectifier Chip Diode

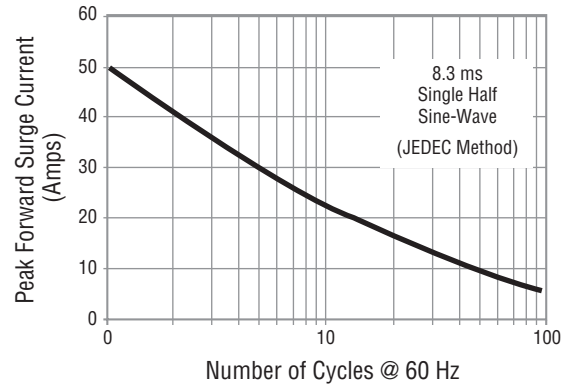
BOURNS®

Performance Graphs

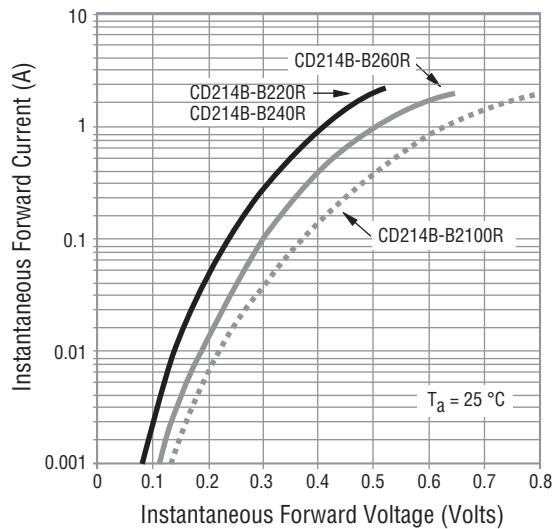
Forward Current Derating Curve



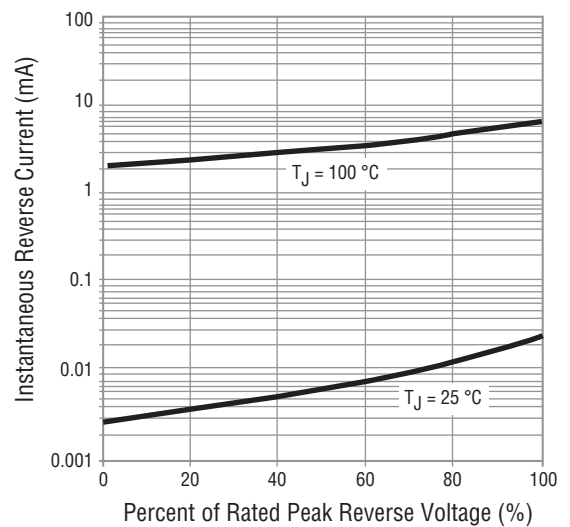
Max. Peak Forward Surge Current



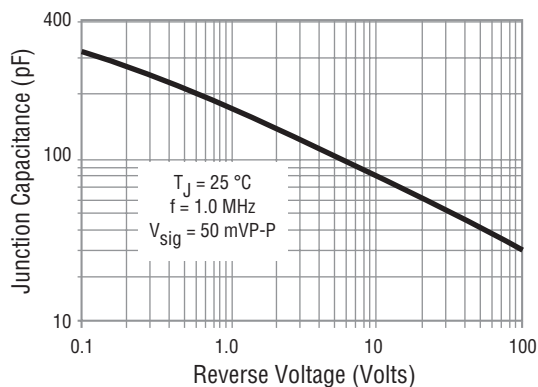
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



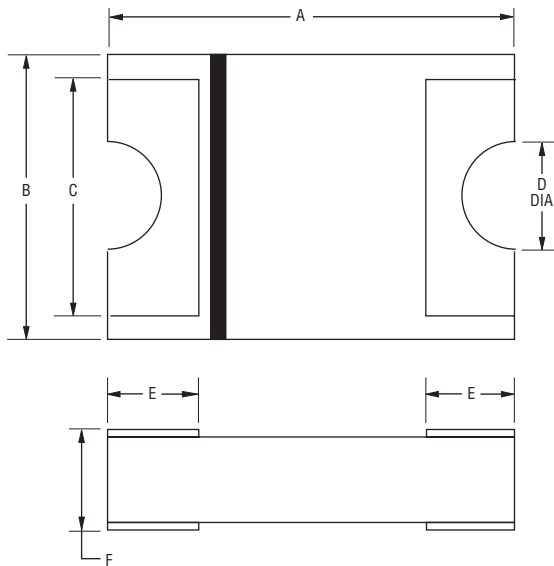
Specifications are subject to change without notice.

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.

CD214B-B2xR Series Schottky Barrier Rectifier Chip Diode

BOURNS®

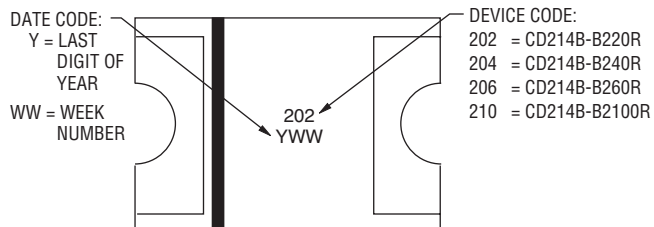
Product Dimensions



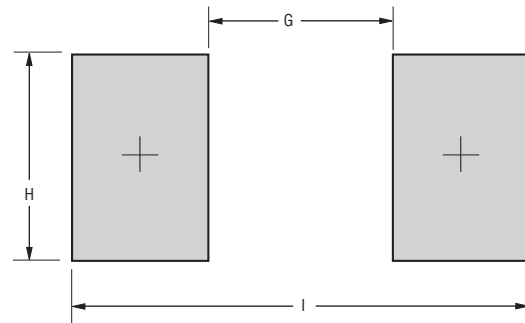
Dimension	CD214B-B2 Series
A	$\frac{5.20 \pm 0.10}{(0.205 \pm 0.004)}$
B	$\frac{3.60 \pm 0.10}{(0.142 \pm 0.004)}$
C	$\frac{3.01}{(0.119)}$ TYP.
D (Dia.)	$\frac{0.695 \pm 0.015}{(0.027 \pm 0.001)}$
E	$\frac{1.15 \pm 0.1}{(0.045 \pm 0.004)}$
F	$\frac{1.10 \pm 0.15}{(0.043 \pm 0.006)}$

DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Typical Part Marking



Recommended Pad Layout



Dimension	CD214B-B2 Series
G	$\frac{2.65}{(0.104)}$ MAX.
H	$\frac{3.00}{(0.118)}$ MIN.
I	$\frac{6.65}{(0.262)}$ REF.

DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Environmental Specifications

Moisture Sensitivity Level 1
ESD Classification (HBM) 3B

How to Order

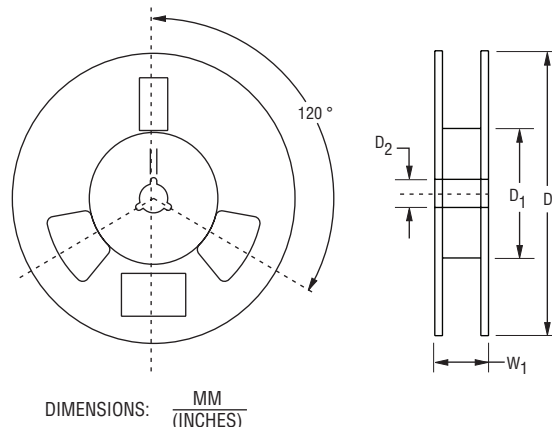
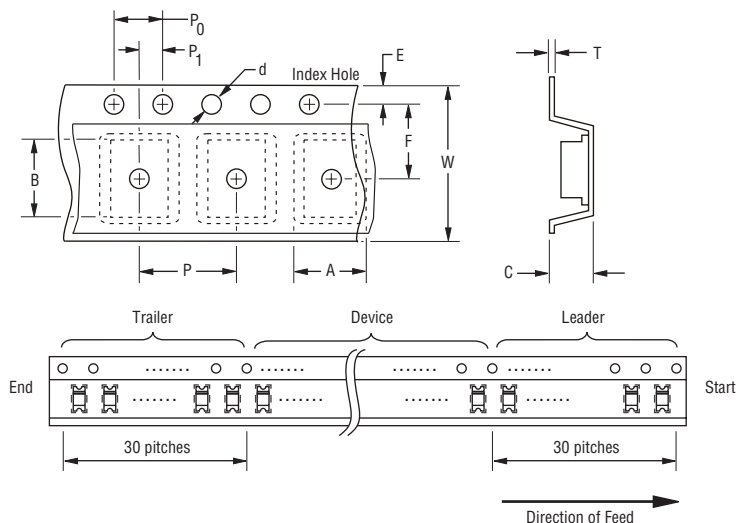
Common Code CD 214B - B 2 20 R
 CD = Chip Diode
 Package 214B = SMB/DO-214AA Compatible
 Model B = Schottky Barrier Series
 Maximum Average Forward Rectified Current 2 = 2 A
 Maximum Repetitive Peak Reverse Voltage 20 = 20 V
 40 = 40 V
 60 = 60 V
 100 = 100 V

CD214B-B2xR Series Schottky Barrier Rectifier Chip Diode

BOURNS®

Packaging Information

The product is dispensed in tape and reel format (see diagram below).



Item	Symbol	CD214B-B2 Series
Carrier Width	A	$\frac{3.70 \pm 0.10}{(0.146 \pm 0.004)}$
Carrier Length	B	$\frac{5.40 \pm 0.10}{(0.213 \pm 0.004)}$
Carrier Depth	C	$\frac{1.65 \pm 0.10}{(0.065 \pm 0.004)}$
Sprocket Hole	d	$\frac{1.50 \pm 0.10}{(0.059 \pm 0.004)}$
Reel Outside Diameter	D	$\frac{330 \pm 2.0}{(12.992 \pm 0.079)}$
Reel Inner Diameter	D ₁	$\frac{50.0}{(1.969)} \text{ MIN.}$
Feed Hole Diameter	D ₂	$\frac{13.0 \pm 0.50}{(0.512 \pm 0.020)}$
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	$\frac{8.00 \pm 0.10}{(0.157 \pm 0.004)}$
Sprocket Hole Pitch	P ₀	$\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$
Embossment Center	P ₁	$\frac{2.00 \pm 0.10}{(0.079 \pm 0.004)}$
Overall Tape Thickness	T	$\frac{0.40}{(0.016)} \text{ MAX.}$
Tape Width	W	$\frac{12.00 \pm 0.30}{(0.472 \pm 0.012)}$
Reel Width	W ₁	$\frac{18.7}{(0.736)} \text{ MAX.}$
Quantity per Reel	--	5,000

BOURNS®

Asia-Pacific:

Tel: +886-2 2562-4117

Email: asiacus@bourns.com

Europe:

Tel: +36 88 520 390

Email: eurocus@bourns.com

The Americas:

Tel: +1-951 781-5500

Email: americus@bourns.com

www.bourns.com



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.