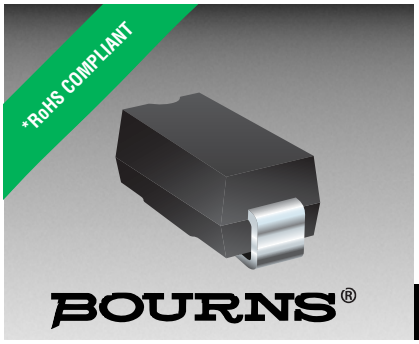


Features

- RoHS compliant*
- SMC package
- Surface mount
- High current capability

CD214C-B320 ~ B360 Schottky Barrier Rectifier Chip 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 Rectifier Diodes for rectification applications, in compact chip package DO-214AB (SMC) size format, which offer PCB real estate savings and are considerably smaller than competitive parts. The Schottky Rectifier Diodes offer a forward current of 3 A with a choice of repetitive peak reverse voltage of 20 V up to 60 V.

Bourns® Chip Diodes conform to JEDEC standards, are easy to handle with standard pick and place equipment and their flat configuration minimizes roll away.

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

Parameter	Symbol	CD214C-					Unit
		B320	B330	B340	B350	B360	
Forward Voltage (Max.) (I_f = 3 A)	V_F	0.5	0.5	0.5	0.7	0.7	V
Typical Junction Capacitance*	C_T	250					pF
Reverse Current (Max.) at Rated V_R)	I_R	0.5					mA

* Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.

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

Parameter	Symbol	CD214C-					Unit
		B320	B330	B340	B350	B360	
Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	V
Reverse Voltage	V_R	20	30	40	50	60	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	V
Avg. Forward Current	I_O	3					A
Forward Current, Surge Peak (60 Hz, 1 cycle)	I_{surge}	100					A
Typical Thermal Resistance**	$R_{\Theta JL}$	10					°C/W
Storage Temperature	T_{STG}	-55 to +150					°C
Junction Temperature	T_J	-55 to +125					°C

** Thermal resistance junction to lead.

How to Order

CD 214C - B 3 30 LF

Common Code
CD = Chip Diode

Package
214C = SMC/DO-214AB

Model
B = Schottky Barrier Series

Average Forward Current (I_O) Code
3 = 3 A (Code x 1000 mA = Average Forward Current)

Reverse Voltage (V_R) Code
20 = 20 V
30 = 30 V
40 = 40 V
50 = 50 V
60 = 60 V

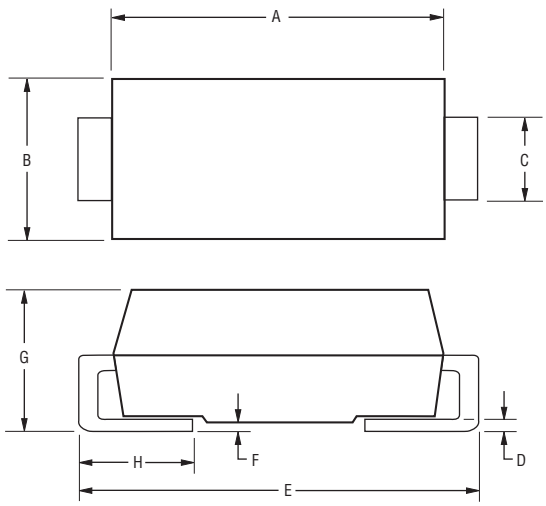
Terminations
LF = 100 % Sn (RoHS Compliant)

*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.

CD214C-B320 ~ B360 Schottky Barrier Rectifier Chip Diode

BOURNS®

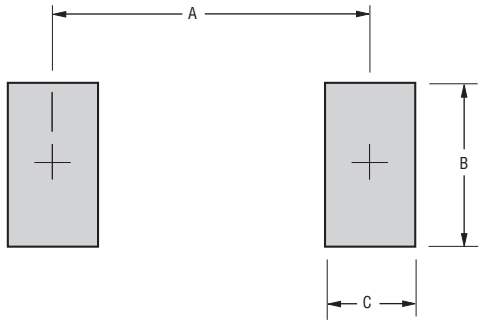
Product Dimensions



Dimension	SMC (DO-214AB)
A	6.60 - 7.11 (0.260 - 0.280)
B	5.59 - 6.22 (0.220 - 0.245)
C	2.92 - 3.18 (0.115 - 0.125)
D	0.15 - 0.31 ().006 - 0.112)
E	7.75 - 8.13 (0.305 - 0.320)
F	0.05 - 0.20 (0.002 - 0.008)
G	2.01 - 2.62 (0.080 - 0.103)
H	0.76 - 1.52 (0.030 - 0.060)

DIMENSIONS: MM / (INCHES)

Recommended Pad Layout



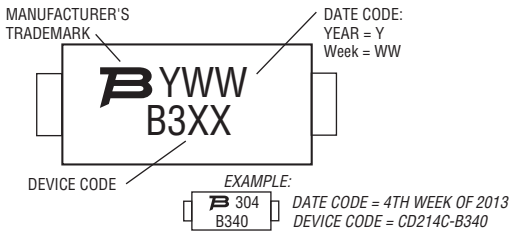
Dimension	SMC (DO-214AB)
A	7.90 (0.311)
B	4.00 (0.157)
C	2.30 (0.091)

DIMENSIONS: MM / (INCHES)

Physical Specifications

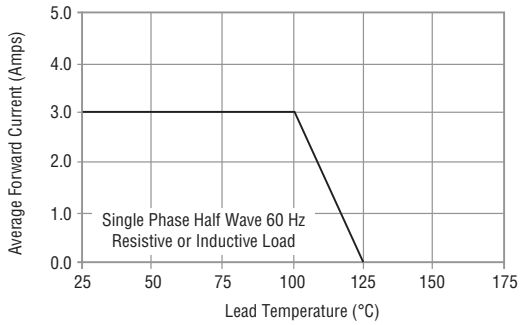
Case ..... Molded plastic
Polarity..... Indicated by cathode band
Weight ..... 0.007 ounces / 0.21 grams

Typical Part Marking

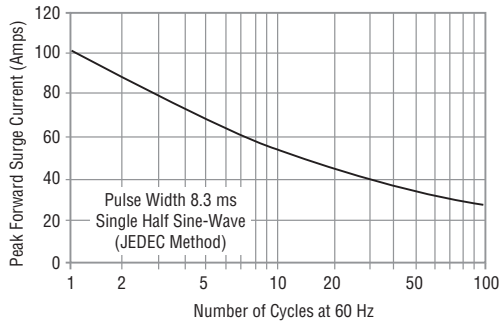


Rating and Characteristic Curves

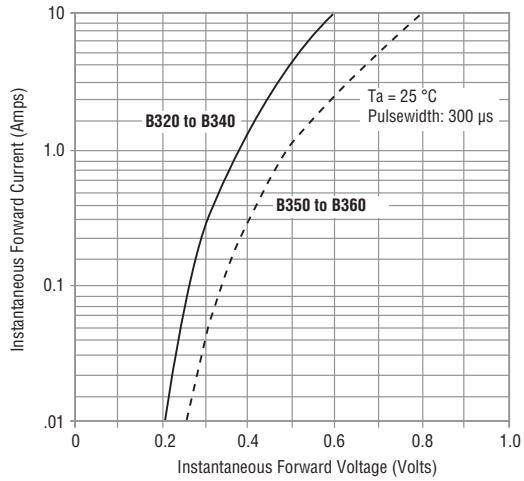
Forward Current Derating Curve



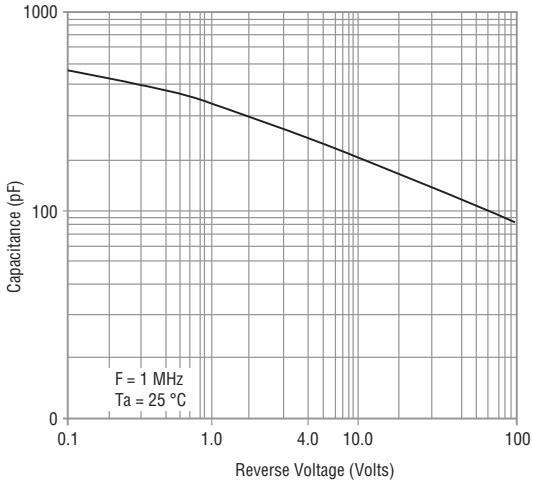
Maximum Non-Repetitive Surge Current



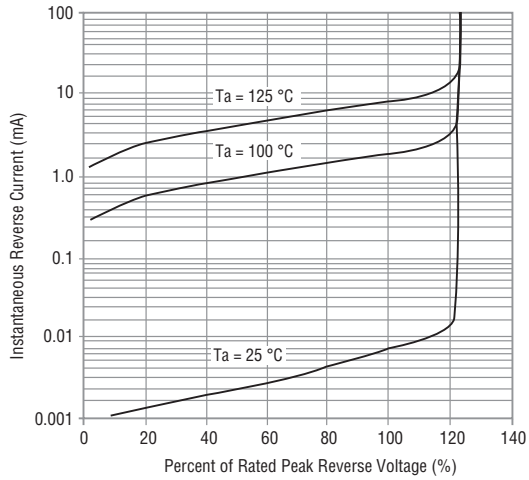
Typical Forward Characteristics



Typical Junction Capacitance

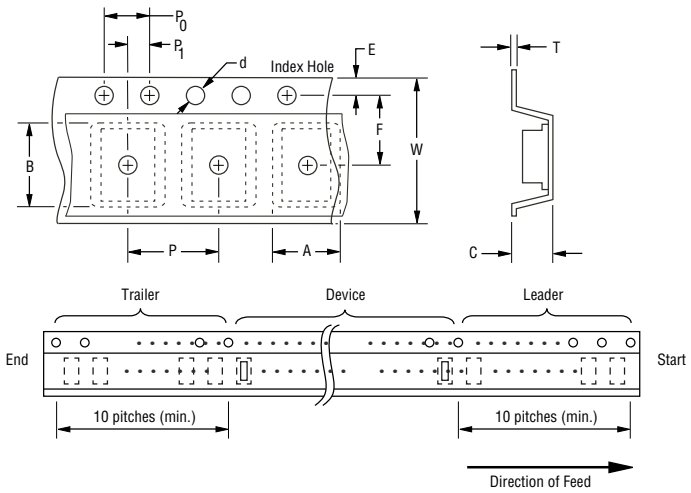


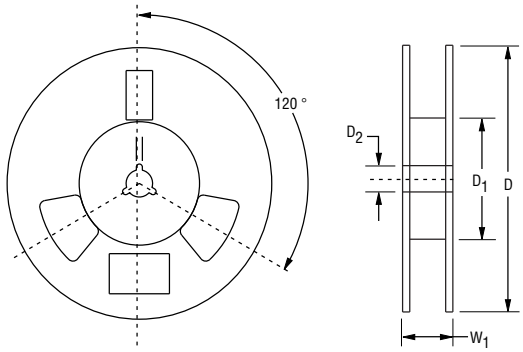
Typical Reverse Characteristics



Packaging Information

The product will be dispensed in Tape and Reel format (see diagram below).





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

Devices are packed in accordance with EIA standard RS-481-A and specifications shown here.

Item	Symbol	SMC (DO-214AB)
Carrier Width	A	$\frac{7.22 \pm 0.10}{(0.284 - 0.004)}$
Carrier Length	B	$\frac{8.11 \pm 0.10}{(0.319 - 0.004)}$
Carrier Depth	C	$\frac{2.36 \pm 0.10}{(0.093 - 0.004)}$
Sprocket Hole	d	$\frac{1.55 \pm 0.05}{(0.061 - 0.002)}$
Reel Outside Diameter	D	$\frac{330}{(12.992)}$
Reel Inner Diameter	D_1	$\frac{50.0}{(1.969)}$ MIN.
Feed Hole Diameter	D_2	$\frac{13.0 \pm 0.20}{(0.512 - 0.008)}$
Sprocket Hole Position	E	$\frac{1.75 \pm 0.10}{(0.069 - 0.004))}$
Punch Hole Position	F	$\frac{7.50 \pm 0.10}{(0.295 - 0.004)}$
Punch Hole Pitch	P	$\frac{4.00 \pm 0.10}{(0.157 - 0.004)}$
Sprocket Hole Pitch	P_0	$\frac{4.00 \pm 0.10}{(0.157 - 0.004)}$
Embossment Center	P_1	$\frac{2.00 \pm 0.10}{(0.079 - 0.004)}$
Overall Tape Thickness	T	$\frac{0.30 \pm 0.10}{(0.012 - 0.004)}$
Tape Width	W	$\frac{16.00 \pm 0.20}{(0.630 - 0.008)}$
Reel Width	W_1	$\frac{22.4}{(0.882)}$ MAX.
Quantity per Reel	--	3,000

REV. 09/15