

## Features

- RoHS compliant\*
- Leadless
- High speed



Model CD1206-S01575 is obsolete and not recommended for new designs.

# CD1206-S01575 Switching 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 small-signal high-speed Switching Diodes for switching digital signal applications, in compact chip package 1206 size format, which offers PCB real estate savings and are considerably smaller than competitive parts. The Switching Diodes offer a forward current of 150 mA and a reverse voltage of 75 V. The diodes are RoHS compliant and are compatible with lead-free manufacturing processes, conforming to many industry and government regulations on lead-free components.

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

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

Parameter	Symbol	CD1206-S01575	Unit
Forward Voltage (Max.)	$V_F$	1.00 ( $I_f = 50$ mA)	V
Capacitance Between Terminals (Max.)	$C_T$	3 ( $f = 100$ MHz, $V_r = 0$ V DC)	pF
Reverse Recovery Time (Max.)	$t_{rr}$	4 ( $V_r = 6$ V, $I_f = 10$ mA, $R_L = 100$ Ω)	nS
Reverse Current (Max.)	$I_R$	2.5 ( $V_r = 75$ V)	μA

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

Parameter	Symbol	CD1206-S01575	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Reverse Voltage	$V_R$	75	V
Average Forward Current	$I_o$	150	mA
Forward Current, Surge	$I_{surge}$	4	A
Power Dissipation	PD	400	mW
Storage Temperature	$T_{STG}$	-55 to +125	°C
Junction Temperature	$T_J$	-55 to +125	°C

## How To Order

CD 1206 - S 015 75

Common Code \_\_\_\_\_  
Chip Diode

Package \_\_\_\_\_  
• 1206

Model \_\_\_\_\_  
S = High Speed Switching

Average Forward Current ( $I_o$ ) Code \_\_\_\_\_  
015 = 150 mA  
(Code x 1000 mA = Average Forward Current)

Reverse Voltage ( $V_R$ ) Code \_\_\_\_\_  
75 = 75 V



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

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

Specifications are subject to change without notice.

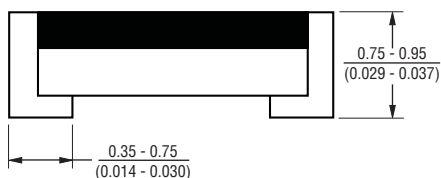
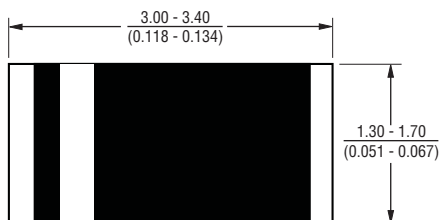
Users should verify actual device performance in their specific applications.

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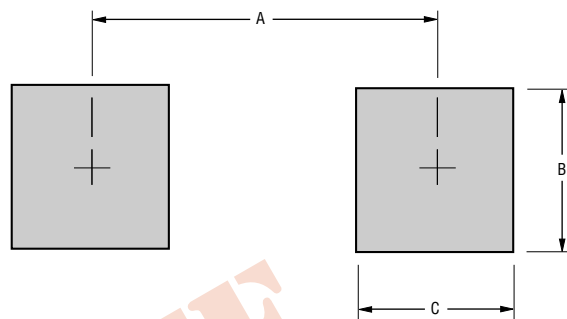
**BOURNS®**

## Product Dimensions



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

## Recommended Pad Layout



Dimension	1206
A (Max.)	$\frac{3.00}{(0.118)}$
B (Min.)	$\frac{1.60}{(0.063)}$
C (Min.)	$\frac{1.40}{(0.055)}$

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

## Physical Specifications

Case .....1206 (3216) Molded plastic  
 Terminals .....Solder plated, solderable per MIL-STD-750,  
 Method 2026  
 Polarity .....Indicated by cathode band  
 Mounting Position .....Any

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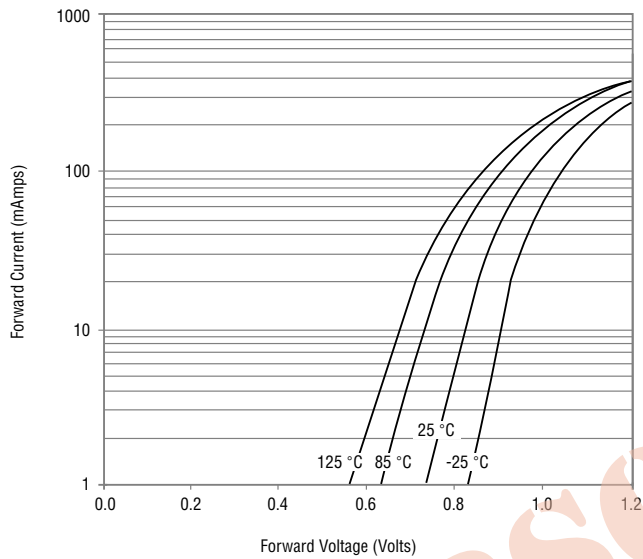
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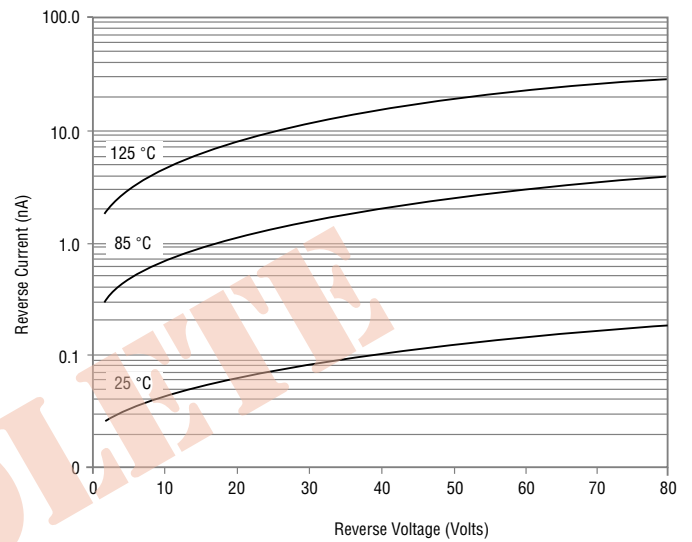
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## Rating and Characteristic Curves: CD1206-S01575

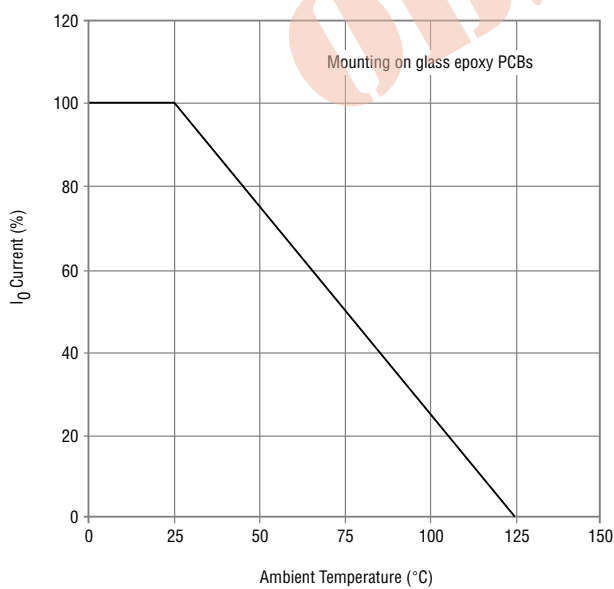
### Forward Characteristics



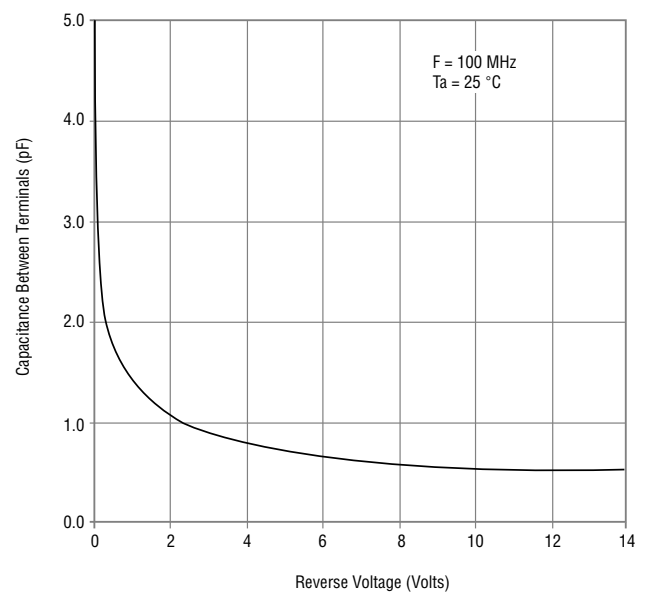
### Reverse Characteristics



### Derating Curve



### Capacitance Between Terminals



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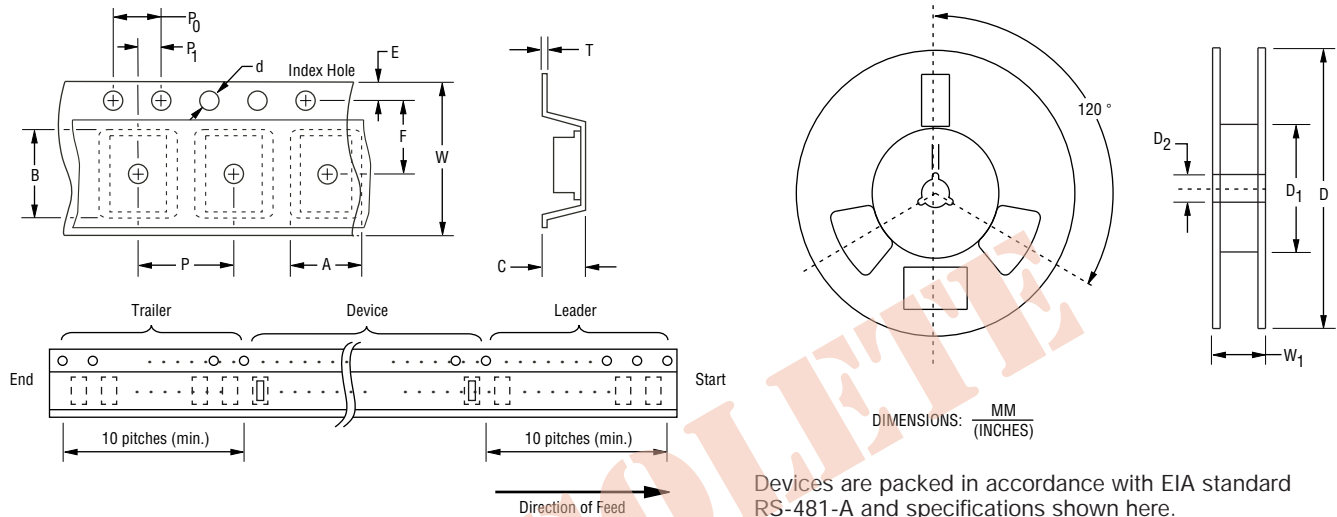
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# CD1206-S01575 Switching Chip Diode

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## Packaging Information

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



Item	Symbol	1206
Carrier Width	A	$\frac{1.70 \pm 0.10}{(0.067 - 0.004)}$
Carrier Length	B	$\frac{3.40 \pm 0.10}{(0.134 - 0.004)}$
Carrier Depth	C	$\frac{1.25 \pm 0.10}{(0.049 - 0.004)}$
Sprocket Hole	d	$\frac{1.55 \pm 0.10}{(0.061 - 0.004)}$
Reel Outside Diameter	D	$\frac{178}{(7.008)}$
Reel Inner Diameter	D <sub>1</sub>	$\frac{60.0}{(2.362)}$ MIN.
Feed Hole Diameter	D <sub>2</sub>	$\frac{13.0 \pm 0.20}{(0.512 - 0.008)}$
Sprocket Hole Position	E	$\frac{1.75 \pm 0.10}{(0.069 - 0.004)}$
Punch Hole Position	F	$\frac{3.50 \pm 0.05}{(0.138 - 0.002)}$
Punch Hole Pitch	P	$\frac{4.00 \pm 0.10}{(0.157 - 0.004)}$
Sprocket Hole Pitch	P <sub>0</sub>	$\frac{4.00 \pm 0.10}{(0.157 - 0.004)}$
Embossment Center	P <sub>1</sub>	$\frac{2.00 \pm 0.05}{(0.079 - 0.002)}$
Overall Tape Thickness	T	$\frac{0.20 \pm 0.05}{(0.008 - 0.002)}$
Tape Width	W	$\frac{8.00 \pm 0.20}{(0.315 - 0.008)}$
Reel Width	W <sub>1</sub>	$\frac{13.5}{(0.531)}$ MAX.
Quantity per Reel	--	5,000

REV. 08/21

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