

Features

- RoHS compliant*
- Leadless
- High speed

Applications

- Cellular phones
- PDAs
- Desktop PCs and notebooks
- Digital cameras
- MP3 players

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

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

Absolute Ratings (@ $T_A = 25 \text{ }^\circ\text{C}$ 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	$^\circ\text{C}$
Junction Temperature	T_J	-55 to +125	$^\circ\text{C}$

BOURNS®

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www.bourns.com

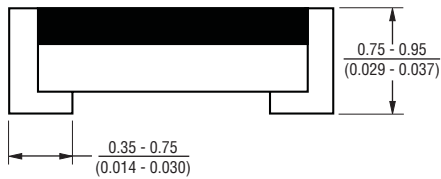
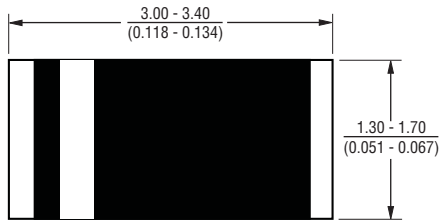
How To Order

Common Code	CD 1206 - S 015 75
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	

CD1206-S01575 Switching Chip Diode

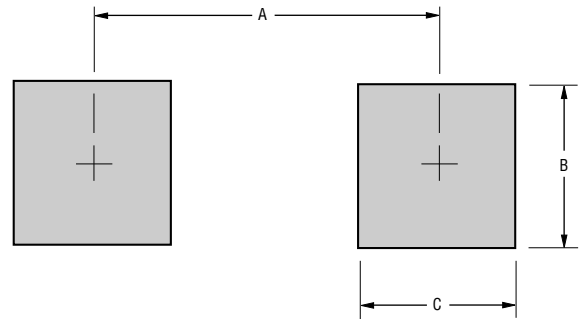
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Product Dimensions



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

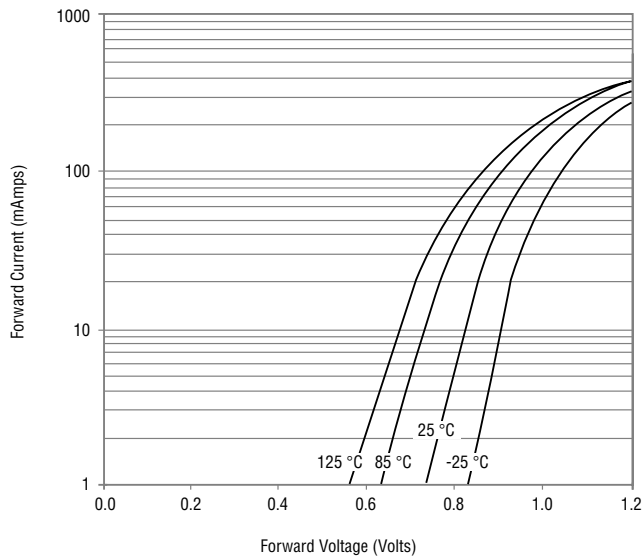
Case1206 (3216) Molded plastic
 TerminalsSolder plated, solderable per MIL-STD-750,
 Method 2026
 PolarityIndicated by cathode band
 Mounting PositionAny

CD1206-S01575 Switching Chip Diode

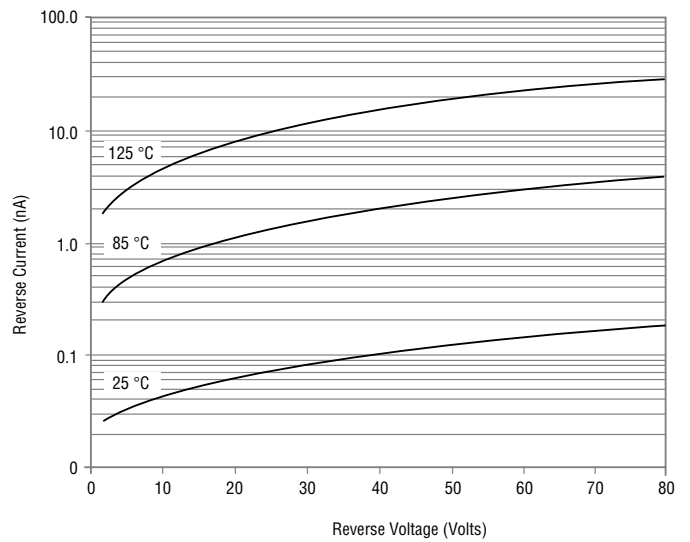
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Rating and Characteristic Curves: CD1206-S01575

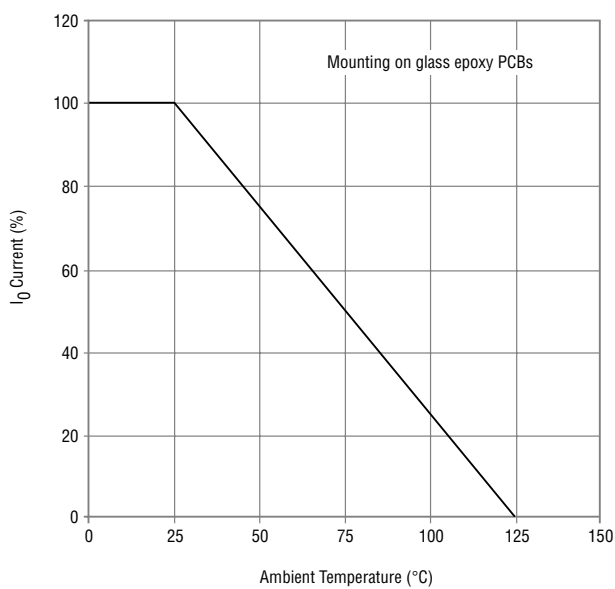
Forward Characteristics



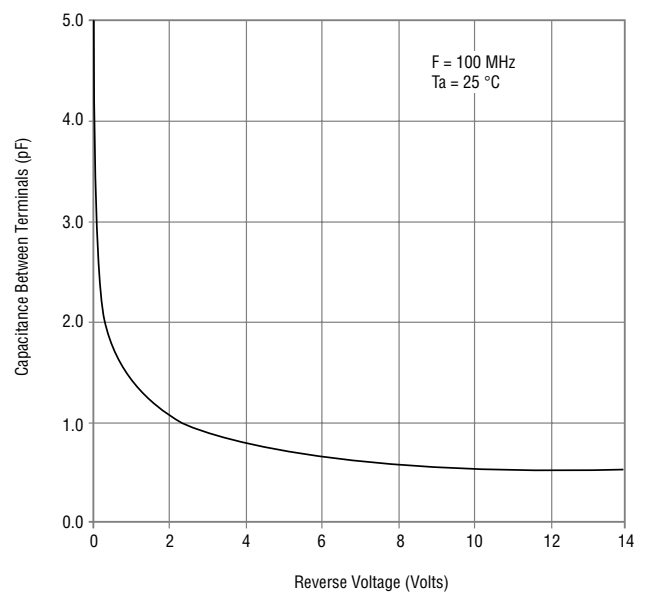
Reverse Characteristics



Derating Curve



Capacitance Between Terminals

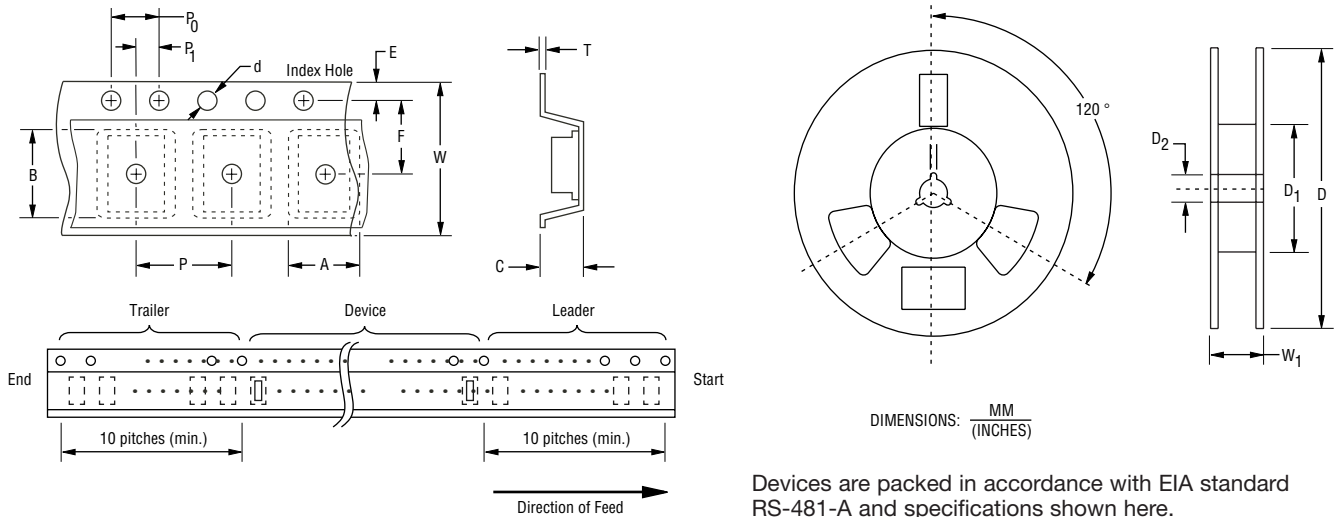


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Packaging Information

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 ₁	$\frac{60.0}{(2.362)}$ 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	$\frac{3.50 \pm 0.05}{(0.138 - 0.002)}$
Punch Hole Pitch	P	$\frac{4.00 \pm 0.10}{(0.157 - 0.004)}$
Sprocket Hole Pitch	P ₀	$\frac{4.00 \pm 0.10}{(0.157 - 0.004)}$
Embossment Center	P ₁	$\frac{2.00 \pm 0.05}{(0.079 - 0.002)}$
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 ₁	$\frac{13.5}{(0.531)}$ MAX.
Quantity per Reel	--	5,000