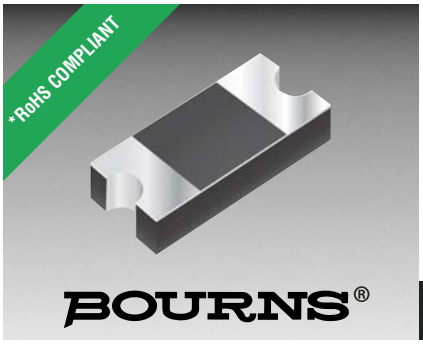


Features

- Lead free device (RoHS compliant*)
- Low profile
- Low power loss, high efficiency
- UL 94V-0 classification

Applications

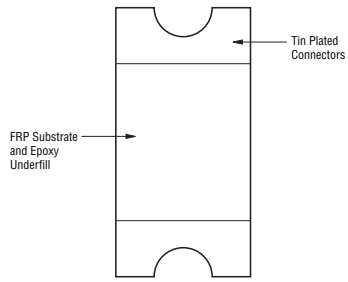
- High frequency switching power supplies
- Inverters
- Free wheeling
- Polarity protection

CD1408-FF1200~FF11500 – Surface Mount 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 Rectifier Diodes for rectification applications, in compact chip package 1408 size format (compatible with SOD87, SOD123 formats), which offers PCB real estate savings and are considerably smaller than most competitive parts. The Glass Passivated Rectifier Diodes offer a forward current of 1 A with a choice of repetitive peak reverse voltage of 200 V up to 1500 V, with a 75 nS maximum recovery time.

Bourns® Chip Diodes conform to JEDEC standards, are 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	CD1408-						Unit
		FF1200	FF1400	FF1600	FF1800	FF11000	FF11500	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	800	1000	1500	V
Maximum RMS Voltage	V_{RMS}	140	280	420	560	700	1000	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	800	1000	1500	V
Max. Average Forward Rectified Current[1]	$I_{(AV)}$	1.0						A
DC Reverse Current @ Rated DC Blocking Voltage (@T_a = 25 °C)	I_R	5.0						µA
DC Reverse Current @ Rated DC Blocking Voltage (@T_a = 125 °C)	I_R	50.0						µA
DC Reverse Current @ Rated DC Blocking Voltage (@T_a = 150 °C)	I_R	50.0						µA
Typical Junction Capacitance[2]	C_J	10						pF
Instantaneous Forward Voltage @ I_F = 1 A	V_F	1.7					6.0	V
Maximum Reverse Recovery Time[3]	T_{rr}	50				75	50	ns
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0				25.0	15.0	A
Typical Thermal Resistance	Rj-a	95						°C/Watt
Typical Thermal Resistance	Rj-l	40						°C/Watt

Notes:
1 See Forward Derating Curve.
2 Measured @ 1.0 MHz and applied reverse voltage of 4.0 VDC.
3 Reverse recovery test condition: IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A

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

Parameter	Symbol	CD1408-FF1200~FF11500	Unit
Operating Temperature Range	T_J	-65 to +175	°C
Storage Temperature Range	T_{STG}	-65 to +175	°C

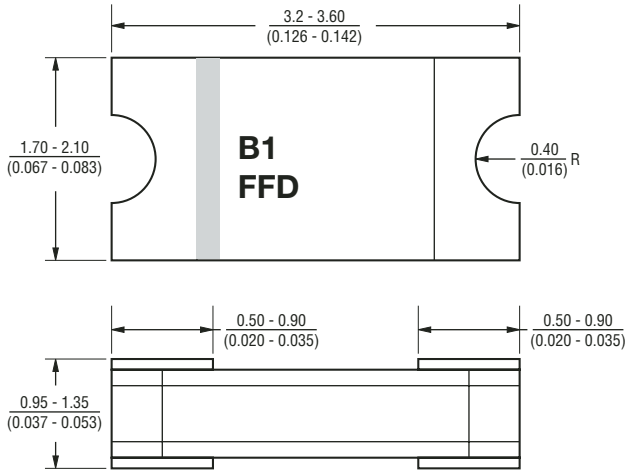
*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

CD1408-FF1200~FF11500 – Surface Mount Rectifier Diode

BOURNS®

Product Dimensions

This is a lead free product, packaged with FRP substrate and is epoxy underfilled. The terminals are pure tin plated and are solderable per MIL-STD-750, Method 2026. The package weighs approximately 0.02 g. The package and dimensions are shown below.



DIMENSIONS: MM / (INCHES)

Recommended Footprint

The device will mount onto existing JEDEC SOD-87 footprint.

How To Order

CD 1408 - FF 1 400

Common Code
CD = Chip Diode

Package
1408 = ~0.14 x 0.08 ˝

Function
F = Super Fast Rectifier

Forward Current $I_{(AV)}$
1 = 1 A

Reverse Voltage
200 = 200 V
400 = 400 V
600 = 600 V
800 = 800 V
1000 = 1000 V
1500 = 1500 V

Typical Part Marking

CD1408-FF1200	**B1 FFD**
CD1408-FF1400	**B1 FFG**
CD1408-FF1600	**B1 FFJ**
CD1408-FF1800	**B1 FFK**
CD1408-FF11000	**B1 FFM**
CD1408-FF11500	**B1 FFW**

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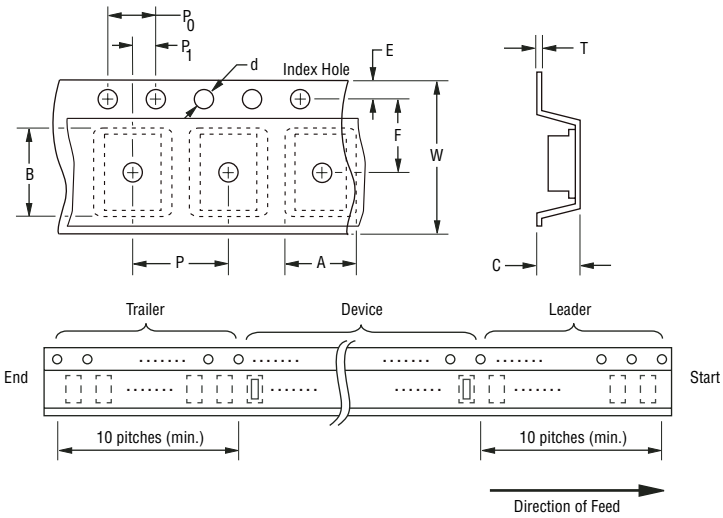
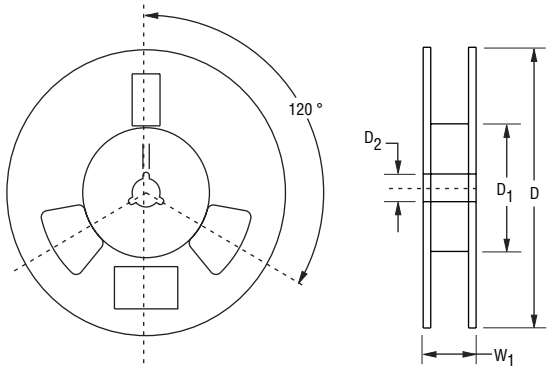
Packaging Information

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





DIMENSIONS: MM / (INCHES)

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

Item	Symbol	1408
Carrier Width	A	1.90 ±0.10 (0.075 - 0.004)
Carrier Length	B	4.30 ±0.10 (0.169 - 0.004)
Carrier Depth	C	1.80 ±0.10 (0.071 - 0.004)
Sprocket Hole	d	1.55 ±0.05 (0.061 - 0.002)
Reel Outside Diameter	D	178 (7.008)
Reel Inner Diameter	D_1	80.0 (3.150) Min.
Feed Hole Diameter	D_2	13.0 ±0.20 (0.512 - 0.008)
Sprocket Hole Position	E	1.75 ±0.10 (0.069 - 0.004)
Punch Hole Position	F	3.50 ±0.05 (0.138 - 0.002)
Punch Hole Pitch	P	4.00 ±0.10 (0.157 - 0.004)
Sprocket Hole Pitch	P_0	4.00 ±0.10 (0.157 - 0.004)
Embossment Center	P_1	2.00 ±0.05 (0.079 - 0.002)
Overall Tape Thickness	T	0.20 ±0.10 (0.008 - 0.004)
Tape Width	W	8.00 ±0.20 (0.315 - 0.008)
Reel Width	W_1	13.5 (0.531) Max.
Quantity per Reel	—	3,000

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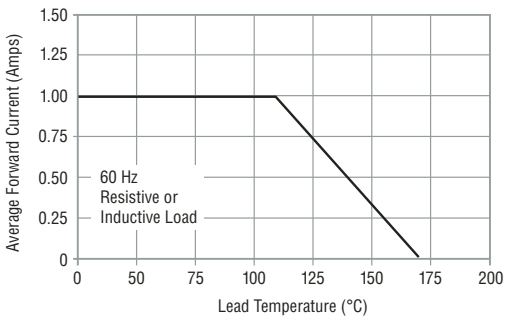
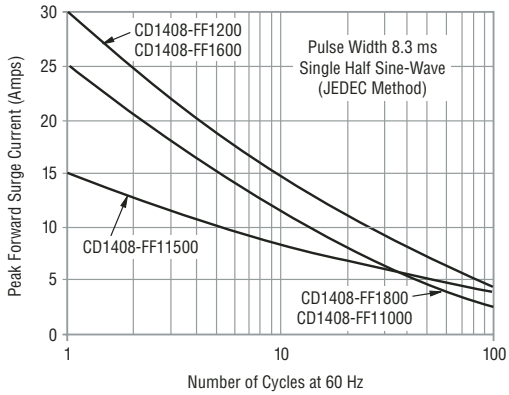
Performance Graphs

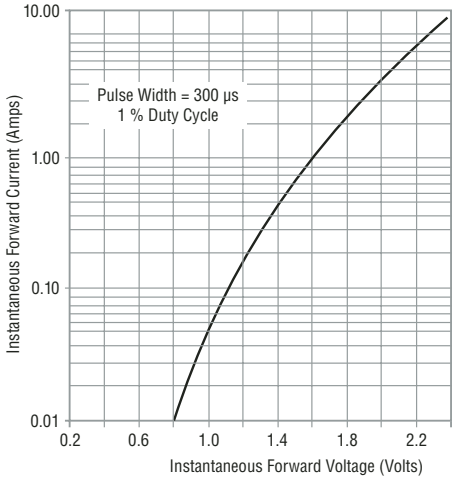
Forward Current Derating Curve



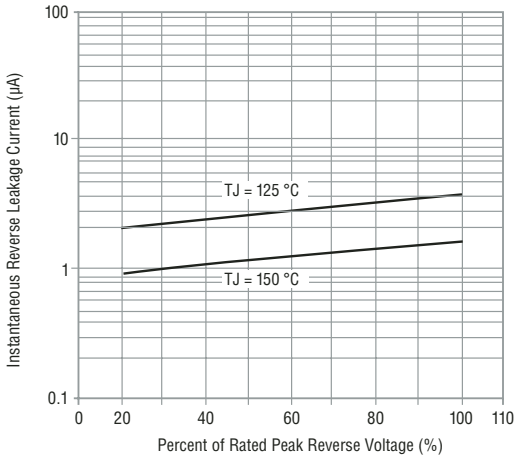
Maximum Non-Repetitive Surge Current



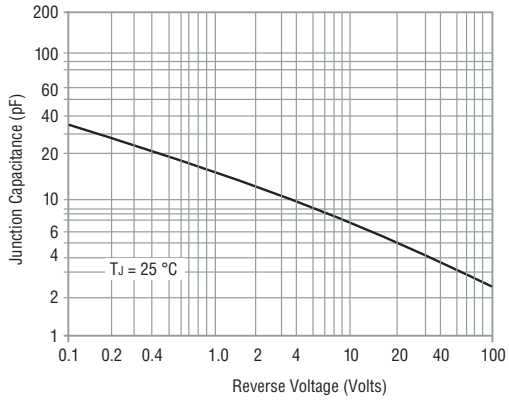
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

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