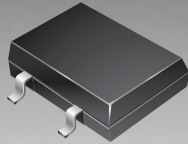


*RoHS COMPLIANT



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Features

- RoHS compliant*
- Small SMT package
- High reliability with superior moisture resistance
- Applicable to automatic insertion



This series is obsolete and not recommended for new designs.

Applications

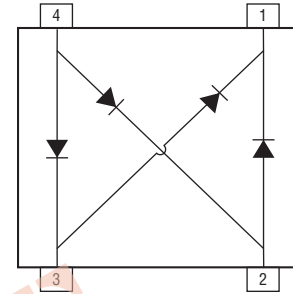
- Switching power supply
- Home appliances, office equipment
- Telecommunication, factory automation

CDNBS04-B08200~B08800 Surface Mount Rectifier

General Information

The CDNBS04-B08200~B08800 device provides Bridge Rectification with high reliability with superior moisture resistance for home appliances, office equipment and telecommunications.

The device provide 0.8 A rectification with a choice of repetitive peak reverse voltages from 200 V to 800 V. The device measures 5 mm x 7 mm and is available in a four lead SMT package intended to be mounted directly onto an FR4 printed circuit board.



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

Parameter	Symbol	CDNBS04-				Unit
		B08200	B08400	B08600	B08800	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	200	400	600	800	V
Maximum RMS Voltage	V _{RMS}	140	280	420	560	V
Maximum DC Blocking Voltage	V _{DC}	200	400	600	800	V
Maximum Average Forward Rectified Current @ T _A = 40 °C ¹	I _(AV)	0.8				A
Maximum DC Reverse Current @ T _J = 25 °C	I _R	5				μA
Maximum DC Reverse Current @ T _J = 100 °C	I _R	100				μA
Maximum Forward Voltage @ 0.4 A DC	V _F	1.15				V
I ² t Rating for Fusing (T < 8 ms)	I ² t	3.7				A ² S
Maximum Recovery Time	T _{RR}	150		200	500	ns
Typical Thermal Resistance ²	R _{θJA}	50				°C/W
Typical Junction Capacitance per element ³	C _J	13				pF
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30				A

Notes:

- 1 Mounted on PC Board. See Forward Derating Curve.
- 2 Thermal Resistance from Junction to Ambient.
- 3 Measured at 1 MHz and applied Reverse Voltage of 4.0 VDC.

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

Parameter	Symbol	CDNBS04-B08200~B08800	Unit
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C



WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

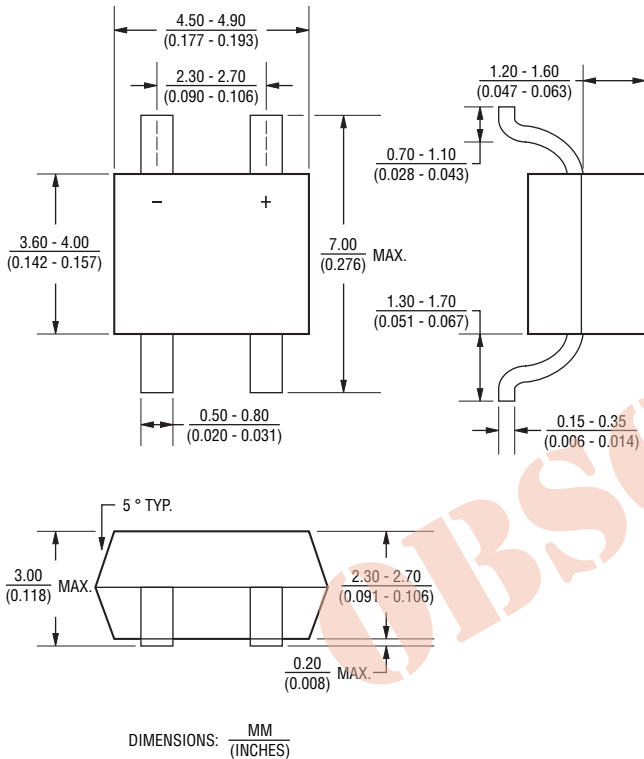
*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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CDNBS04-B08200~B08800 Surface Mount Rectifier

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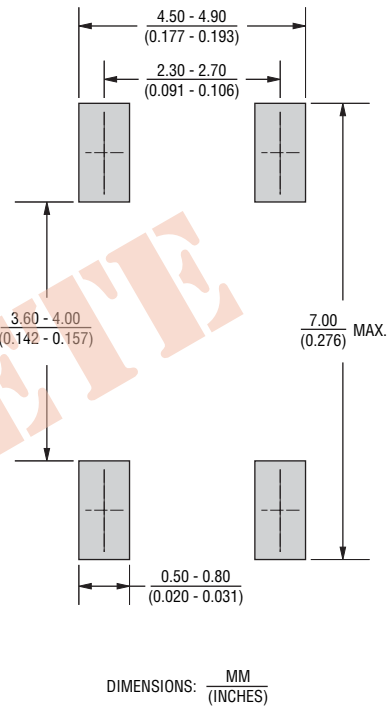
Product Dimensions

This is a molded package weighs approximately 0.125 g and can be mounted in any position. The dimensions for the packaged device are shown below.



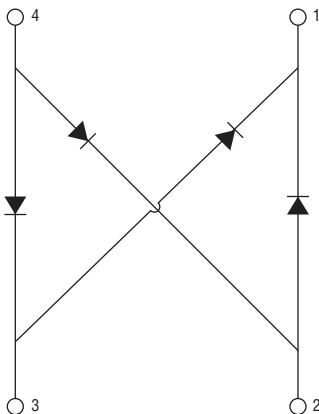
Recommended Footprint

The device will mount onto existing JEDEC SOD-106 footprint.



Block Diagram

The block diagram below includes the pin names and basic electrical connections associated with each channel.



How To Order

Common Code CD NBS04 - B 08 800

CD = Chip Diode

Package NBS04

Model Series B

B = Bridge Rectifier

Maximum Rectified Current 08

08 = 100 mA

Working Peak Reverse Voltage 800

200 = 200 V_{RWM}

400 = 400 V_{RWM}

600 = 600 V_{RWM}

800 = 800 V_{RWM}

Typical Part Marking

CDNBS04-B08200 **B** 8 200

CDNBS04-B08400 **B** 8 400

CDNBS04-B08600 **B** 8 600

CDNBS04-B08800 **B** 8 800

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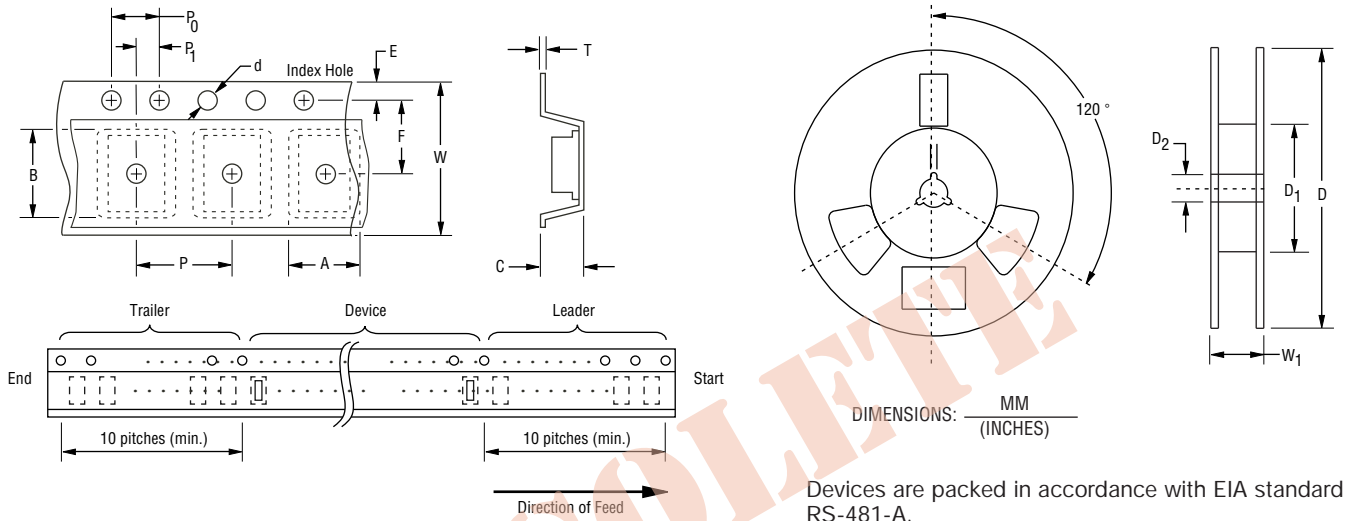
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CDNBS04-B08200~B08800 Surface Mount Rectifier

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Packaging Specifications

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



Devices are packed in accordance with EIA standard RS-481-A.

Item	Symbol	NSOIC 4L
Carrier Width	A	$\frac{6.7 \pm 0.10}{(0.264 \pm 0.004)}$
Carrier Length	B	$\frac{5.5 \pm 0.10}{0.217 \pm 0.004}$
Carrier Depth	C	$\frac{2.10 \pm 0.10}{0.083 \pm 0.004}$
Sprocket Hole	d	$\frac{1.55 \pm 0.05}{(0.061 \pm 0.002)}$
Reel Outside Diameter	D	$\frac{330}{(12.992)}$
Reel Inner Diameter	D ₁	$\frac{80.0}{(3.1500)}$ MIN.
Feed Hole Diameter	D ₂	$\frac{13.0 \pm 0.20}{(0.512 \pm 0.008)}$
Sprocket Hole Position	E	$\frac{1.75 \pm 0.10}{(0.069 \pm 0.004)}$
Punch Hole Position	F	$\frac{3.50 \pm 0.05}{(0.138 \pm 0.002)}$
Punch Hole Pitch	P	$\frac{8.00 \pm 0.10}{(0.315 \pm 0.004)}$
Sprocket Hole Pitch	P ₀	$\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$
Embossment Center	P ₁	$\frac{2.00 \pm 0.05}{(0.079 \pm 0.002)}$
Overall Tape Thickness	T	$\frac{0.20 \pm 0.10}{(0.008 \pm 0.004)}$
Tape Width	W	$\frac{12.00 \pm 0.20}{(0.472 \pm 0.008)}$
Reel Width	W ₁	$\frac{18.4}{(0.724)}$ MAX.
Quantity per Reel	-	2500

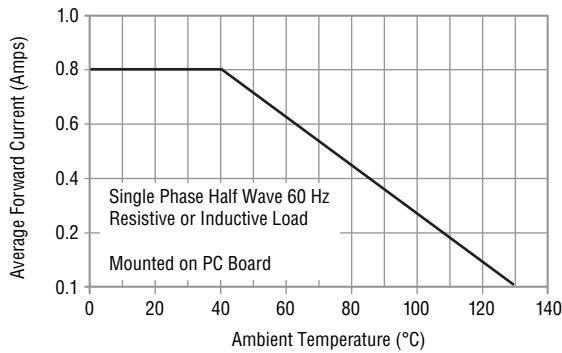
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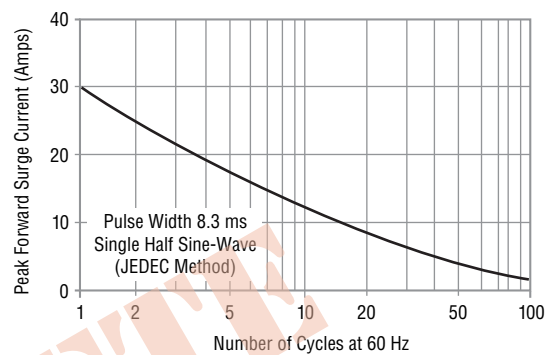
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Performance Graphs

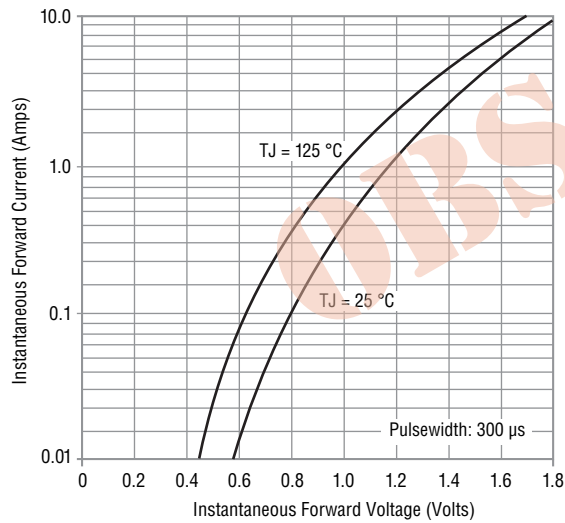
Forward Current Derating Curve



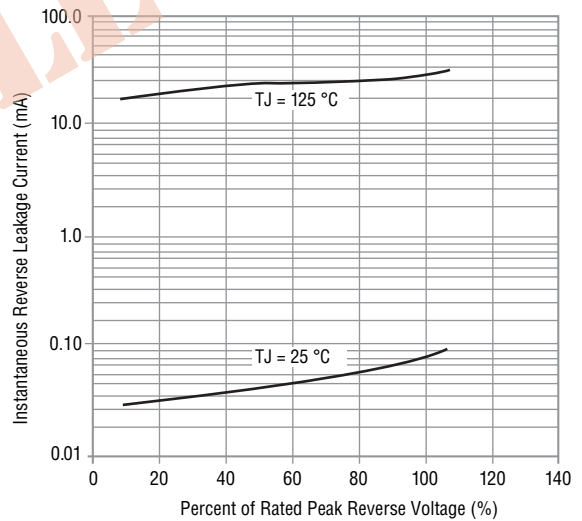
Maximum Non-Repetitive Surge Current



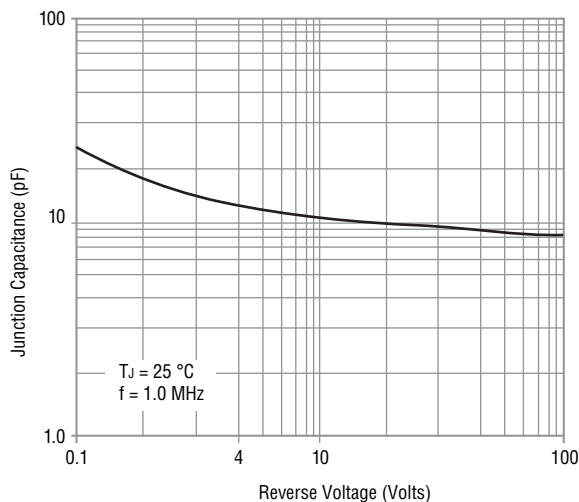
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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