



#### **SCHOTTKY BARRIER RECTIFIERS**

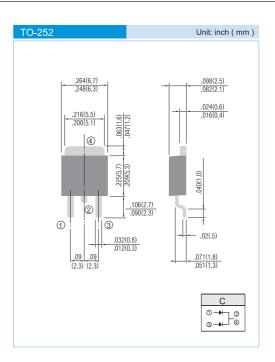
VOLTAGE 40 to 200 Volts CURRENT 10.0 Amperes

#### **FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- · For through hole applications
- · Low profile package
- · Built-in strain relief
- · Low power loss, High efficiency
- · High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Lead free in comply with EU RoHS 2002/95/EC directives

#### **MECHANICALDATA**

- Case: TO-252 molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- · Polarity: As marking
- Weight: 0.0104 ounces, 0.297 grams.



### **MAXIMUM RATINGS**

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

PARAMETER	SYMBOL	BD1040CS	BD1045CS	BD1050CS	BD1060CS	BD1080CS	BD1090CS	BD10100CS	BD10150CS	BD10200CS	UNITS
Maximum Recurrent Peak Reverse Voltage		40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward (See Figure 1)	I <sub>F(AV)</sub>	10							А		
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	100						A			
Maximum Forward Voltage at 5.0A per leg	V <sub>F</sub>	0.	70	0.	.75 0.80 0.90			90	V		
Maximum DC Reverse Current at T <sub>J</sub> =25°C Rated DC Blocking Voltag T <sub>J</sub> =100°C	I <sub>R</sub>	0.05 20							mA		
Typical Thermal Resistance	R <sub>eJC</sub>	3.0						°C / W			
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150 -65 to +175						°C			

NOTES:

Both Bonding and Chip structure are available.





### RATING AND CHARACTERISTIC CURVES

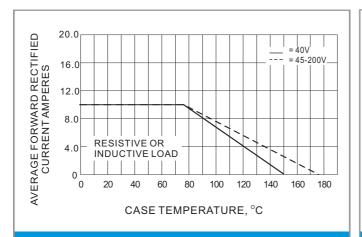


Fig.1- FORWARD CURRENT DERATING CURVE

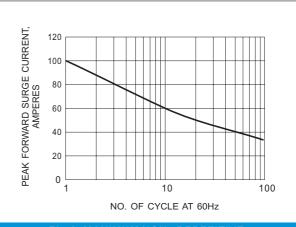


Fig.2- MAXIMUM NON - REPETITIVE FORWARD SURGE CURRENT

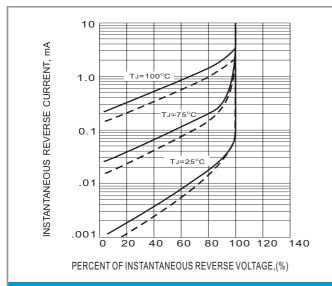


Fig.3- TYPICAL REVERSE CHARACTERISTICS

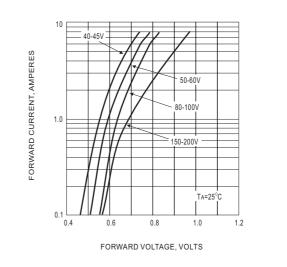
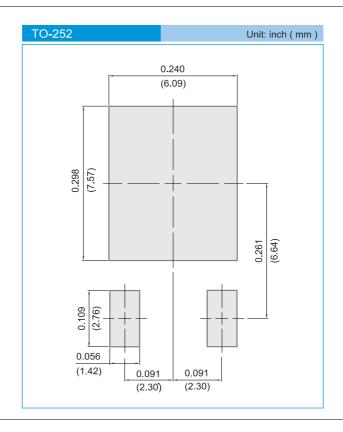


Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC





### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

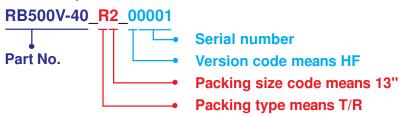
• Packing information

T/R - 3K per 13" plastic Reel





## For example:



Packing Code XX				Version Code XXXXX				
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code		
T/B	A	N/A	0	HF	0	serial number		
T/R	R	7"	1	RoHS	1	serial number		
B/P	В	13"	2					
T/P	Т	26mm	X					
TRR	S	52mm	Υ					
TRL	L	PBCU	U					
FORMING	F	PBCD	D					

## Part No\_packing code\_Version

BD1040CS\_L2\_00001 BD1040CS\_L2\_10001

BD1040CS\_S2\_00001

BD1040CS\_S2\_10001





## Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.