

BD1040CS~BD10200CS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Voltage

40~200 V

Current

10 A

TO-252

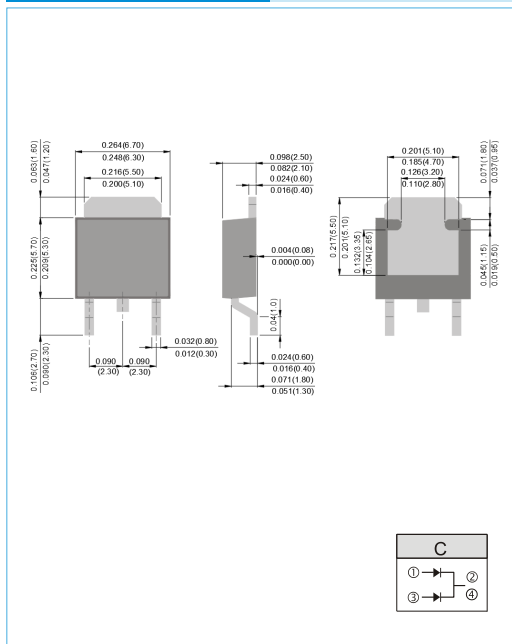
Unit : inch(mm)

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- For through hole applications
- 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 compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : TO-252 Molded plastic
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : As marking
- Standard packaging : 16mm tape (EIA-481)
- Approx. Weight : 0.297 grams
- Marking : Part number



Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER		SYMBOL	BD1040CS	BD1045CS	BD1050CS	BD1060CS	BD1080CS	BD1090CS	BD10100CS	BD10150CS	BD10200CS	UNIT
Maximum repetitive peak reverse voltage		V _{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS voltage		V _{RMS}	28	31.5	35	42	56	63	70	105	140	V
Maximum DC blocking voltage		V _R	40	45	50	60	80	90	100	150	200	V
Maximum average forward rectified current		I _{F(AV)}	10									A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load		I _{FSM}	100									A
Maximum forward voltage at 5A per diode		V _F	0.7		0.75		0.8			0.9		V
Maximum DC reverse current at rated DC blocking voltage	T _J =25 °C	I _R	0.05									mA
	T _J =100 °C		20									
Typical thermal resistance		R _{θJC}	3									°C/W
Operating junction and storage temperature range		T _J , T _{STG}	-55 to +150	-65 to +175								°C

Note: Both Bonding and Chip structure are available.

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TYPICAL CHARACTERISTIC CURVES

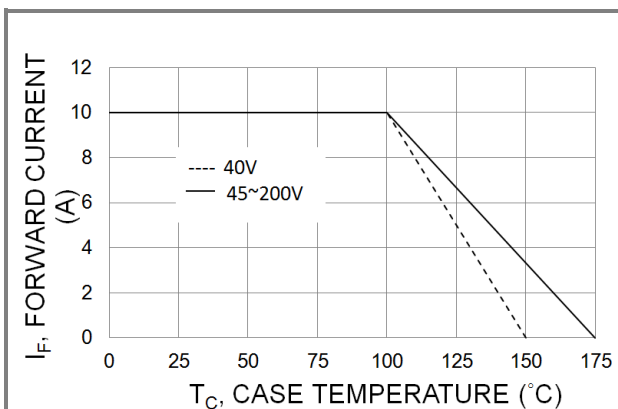


Fig.1 Forward Current Derating Curve

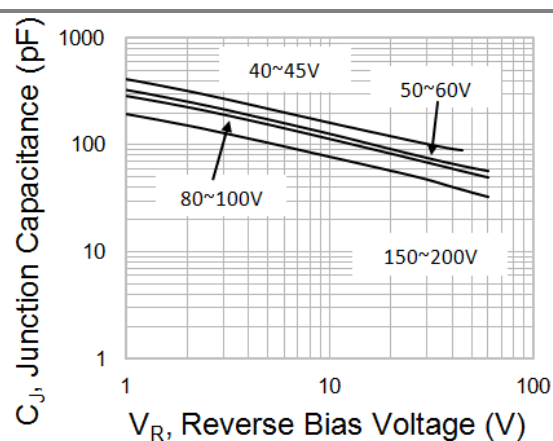


Fig.2 Typical Junction Capacitance

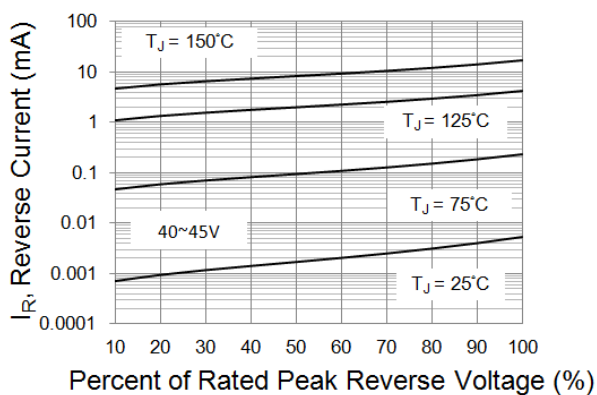


Fig.3 Typical Reverse Characteristics

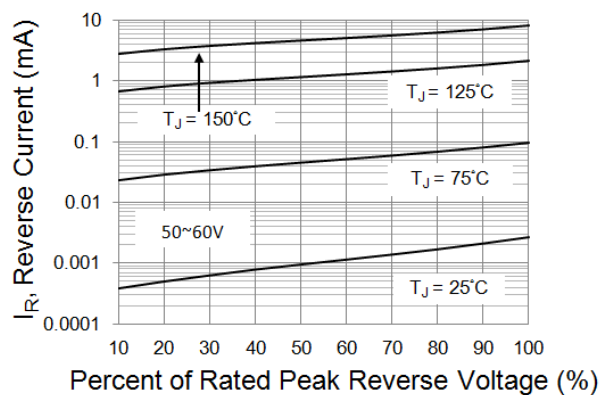


Fig.4 Typical Reverse Characteristics

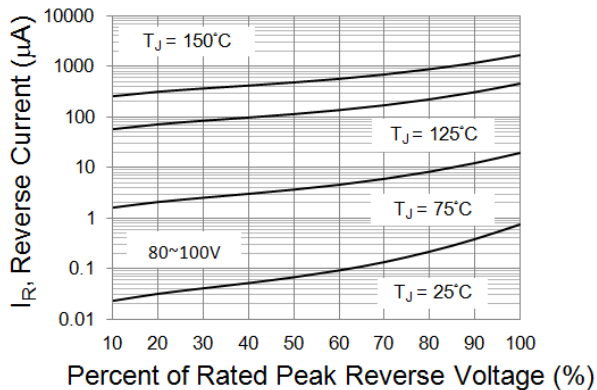


Fig.5 Typical Reverse Characteristics

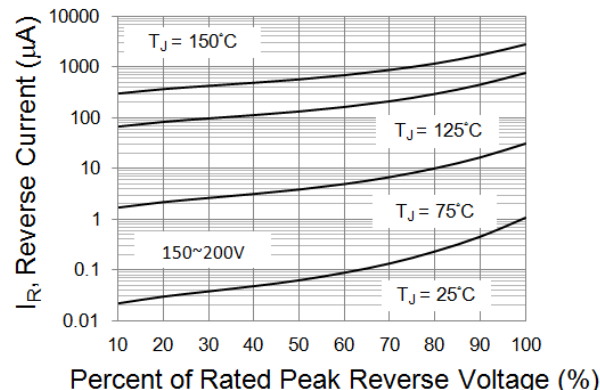


Fig.6 Typical Reverse Characteristics

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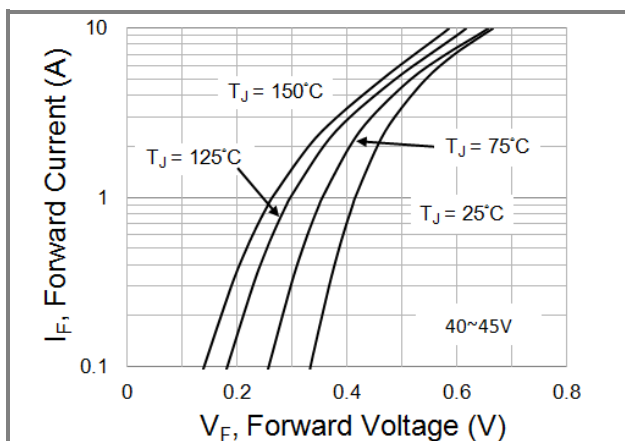


Fig.7 Typical Forward Characteristics

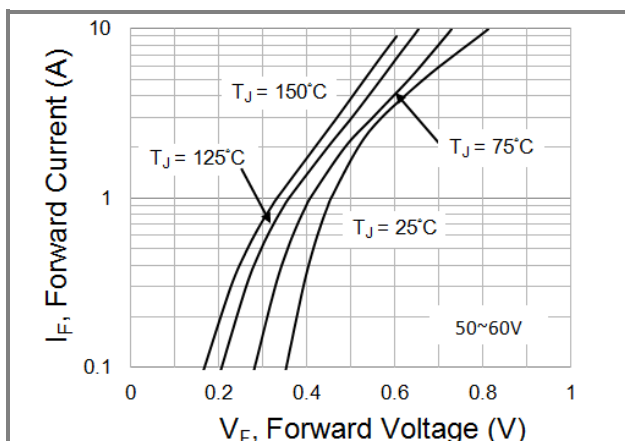


Fig.8 Typical Forward Characteristics

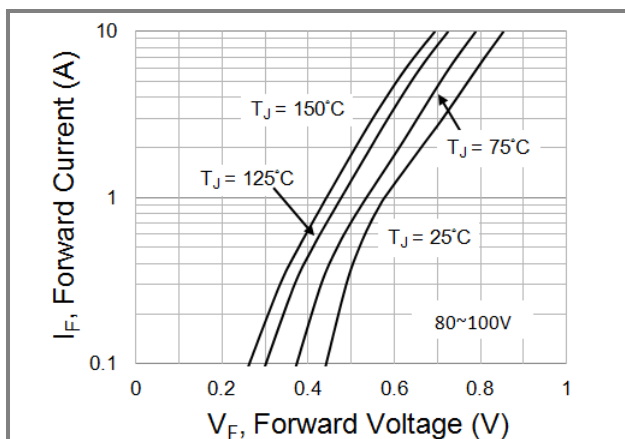


Fig.9 Typical Forward Characteristics

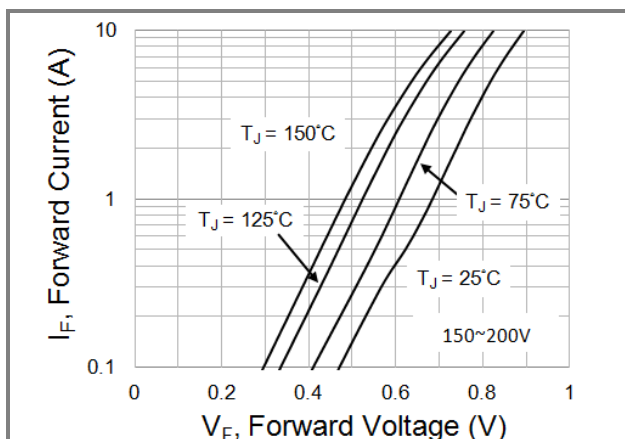


Fig.10 Typical Forward Characteristics

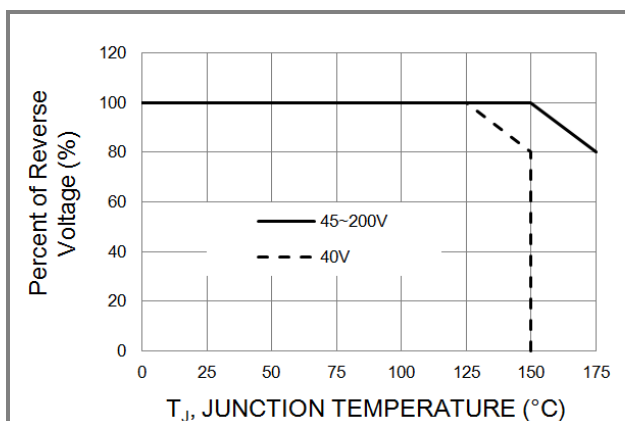
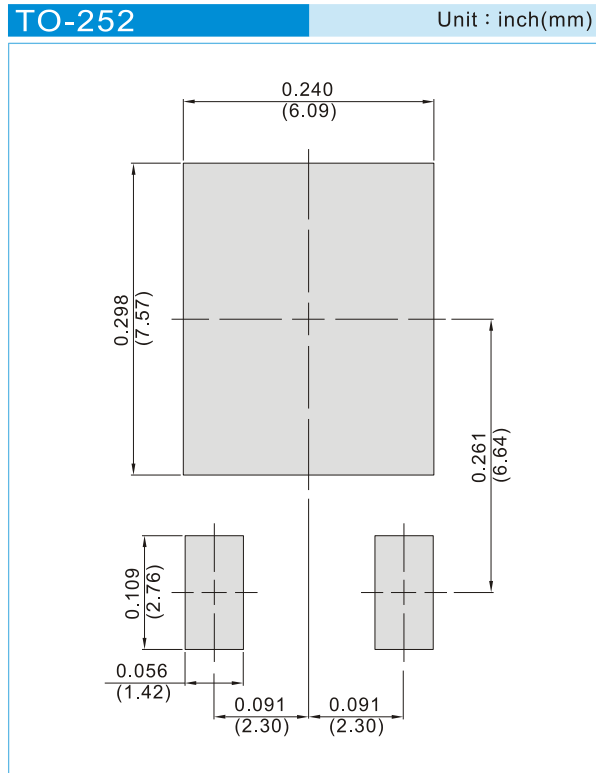


Fig.11 Operating Temperature Derating Curve

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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R – 3K per 13" plastic Reel



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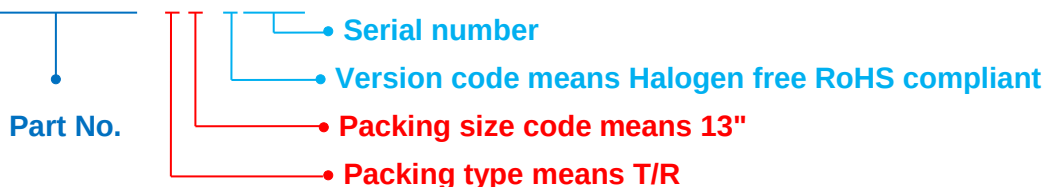
Part No._packing code_Version

BD1040CS_L2_00001

BD1040CS_S2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code X		Serial number XXXXX
Packing type	1 st Code	Packing size code	2 nd Code	HSF Level	1 st Code	2 nd _5 th Code
Tape and Ammunition Box(T/B)	A	N/A	0	Halogen free RoHS compliant	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS compliant	1	serial number
Bulk Packing(B/P)	B	13"	2			
Tube Packing(T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP(PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN(PBCD)	D			



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