



# BD540S~BD5200S

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**Voltage**

**40~200 V**

**Current**

**5 A**

**TO-252**

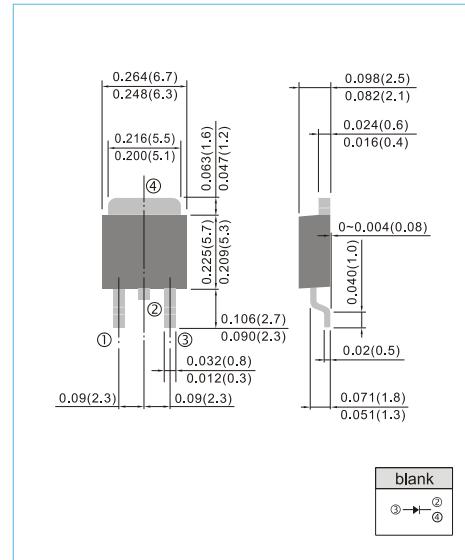
Unit : inch(mm)

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- For surface mounted applications in order to optimize board space
- 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 2011/65/EU directive.
- Green molding compound as per IEC61249 Std..(Halogen Free)

### Mechanical Data

- Case: TO-252 Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Approx. Weight: 0.0104 ounces, 0.297 grams
- Marking: Part number



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

PARAMETER	SYMBOL	BD540S	BD545S	BD550S	BD560S	BD580S	BD590S	BD5100S	BD5150S	BD5200S	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	$I_{F(AV)}$						5				A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$						100				A
Maximum forward voltage at 5A	$V_F$		0.7		0.74		0.8		0.9		V
Maximum dc reverse current at $T_J=25^\circ\text{C}$ rated dc blocking voltage	$I_R$					0.05					mA
						20					
Typical thermal resistance	$R_{eJC}$					5					$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150					-65 to +175				$^\circ\text{C}$



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## RATING AND CHARACTERISTIC CURVES

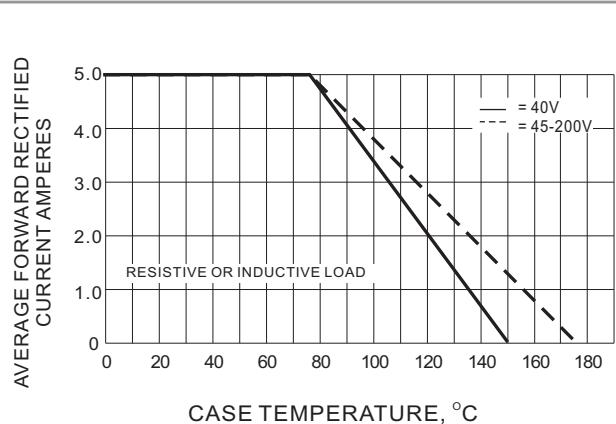


Fig.1 FORWARD CURRENT DERATING CURVE

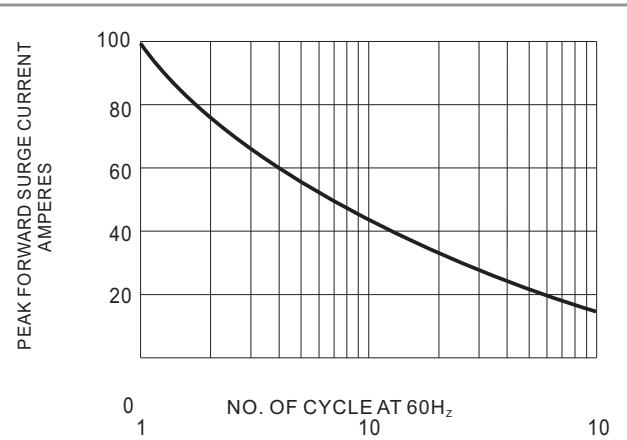


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

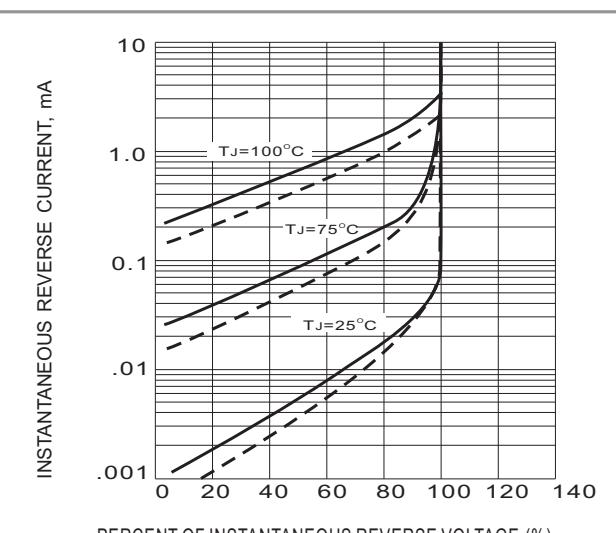


Fig.3 TYPICAL REVERSE CHARACTERISTIC

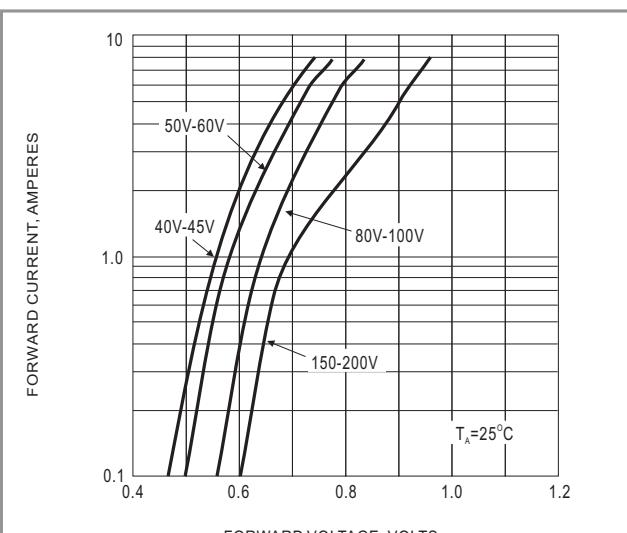


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

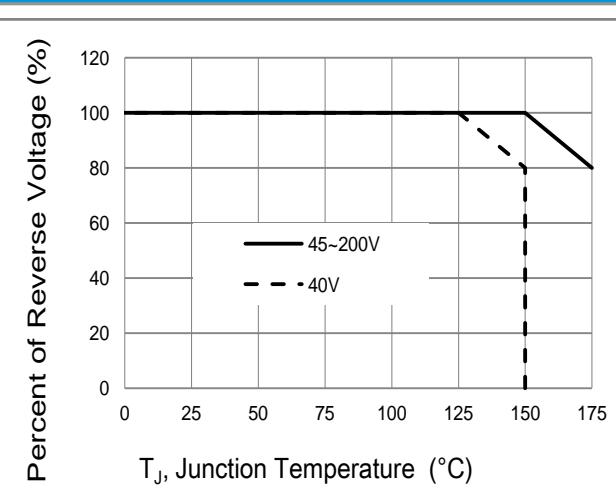
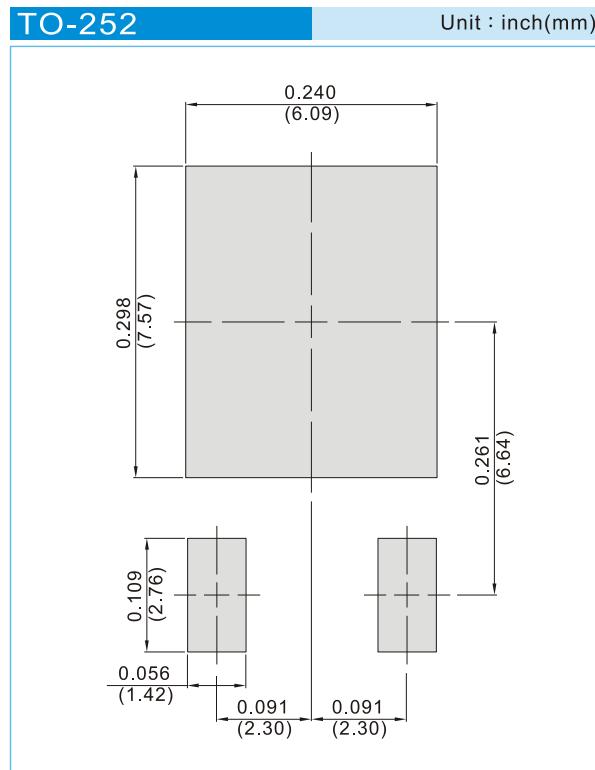


Fig.5 Operating Temperature Derating Curve



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### MOUNTING PAD LAYOUT



### ORDER INFORMATION

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



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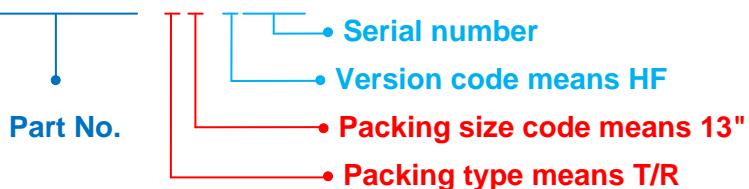
### Part No\_packing code\_Version

BD540S\_L2\_00001

BD540S\_S2\_00001

For example :

RB500V-40\_R2\_00001



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
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	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			



## **BD540S~BD5200S**

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