



#### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

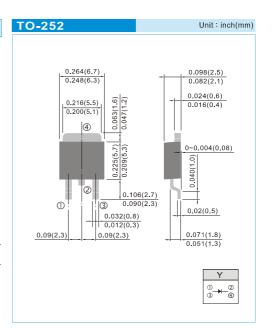
VOLTAGE 40 to 200 Volt CURRENT 5 Ampere

#### **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)

#### **MECHANCAL DATA**

- · 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 AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

PARAMETER	SYMBOL	BD540YS	BD545YS	BD550YS	BD560YS	BD580YS	BD590YS	BD5100YS	BD5150YS	BD5200YS	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	45	50	60	80	90	100	150	200	٧
Maximum RMS Voltage	V <sub>RMS</sub>	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V <sub>R</sub>	40	45	50	60	80	90	100	150	200	V
Average Rectified Output Current	I <sub>F(AV)</sub>	5						А			
Non-Repetitive Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	100						А			
Forward Voltage at 5A	V <sub>F</sub>	0.7		0.74		8.0		0.9		٧	
Peak Reverse Current at Rated DC Blocking $T_J=25^{\circ}\text{C}$ Voltage $T_J=100^{\circ}\text{C}$	I <sub>R</sub>	0.05 20						mA			
Typical Thermal Resistance	R <sub>eJC</sub>	5					°C / W				
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150 -65 to +175				°C					





### **RATING AND CHARACTERISTIC CURVES**

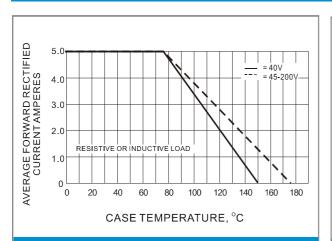


Fig.1 FORWARD CURRENT DERATING CURVE

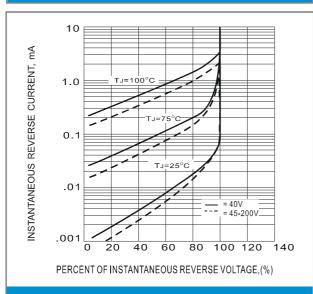
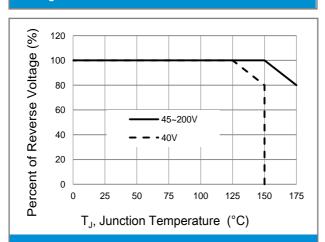


Fig.3 TYPICAL REVERSE CHARACTERISTIC



**Fig.5 Operating Temperature Derating Curve** 

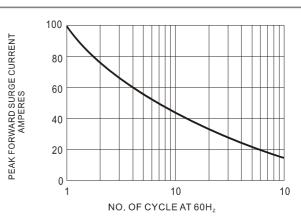


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

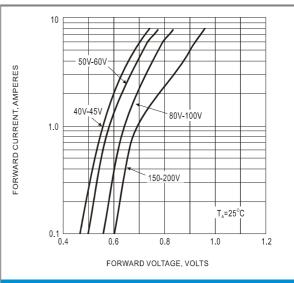
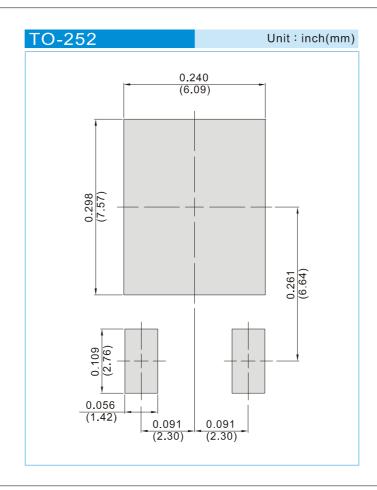


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC





### MOUNTING PAD LAYOUT



#### **ORDER INFORMATION**

Packing information

T/R - 3K per 13" plastic Reel

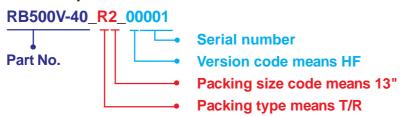




### Part No\_packing code\_Version

BD540YS\_L2\_00001 BD540YS\_S2\_00001

### 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			
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number			
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number			
Bulk Packing (B/P)	В	13"	2						
Tube Packing (T/P)	Т	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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