



# BD540YS SERIES

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 40 to 200 Volts **CURRENT** 5 Amperes

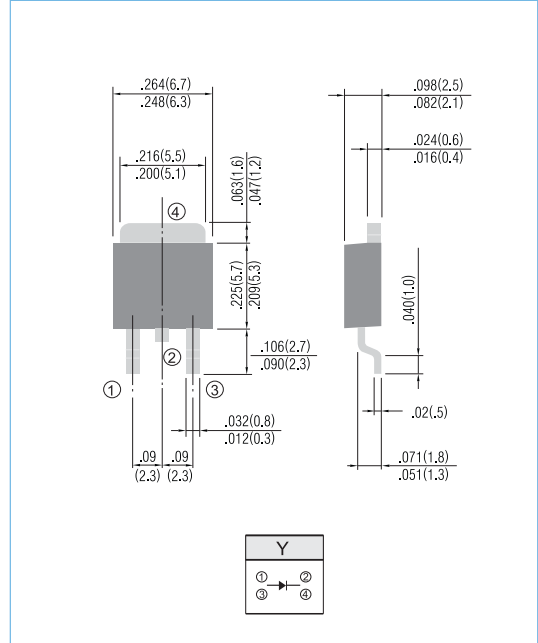
TO-252 Unit: inch ( mm )

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted 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
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL 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.



# Datasheet Directory

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

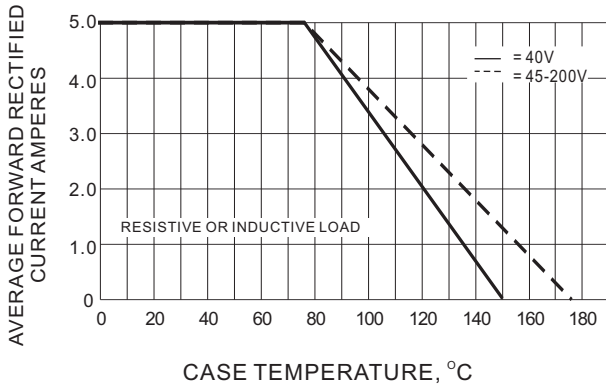
Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

PARAMETER	SYMBOL	BD540YS	BD545YS	BD550YS	BD560YS	BD580YS	BD590YS	BD5100YS	BD5150YS	BD5200YS	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	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
Average Rectified Output Current (See Figure 1)	$I_{F(AV)}$	5.0									A
Non-Repetitive Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100									A
Forward Voltage at 5.0A	$V_F$	0.70	0.74		0.80			0.9		V	
Peak Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=100^{\circ}C$	$I_R$					0.05		20		mA	
Typical Thermal Resistance	$R_{\theta JC}$					5.0			$^{\circ}C / W$		
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150				-65 to +175			$^{\circ}C$		

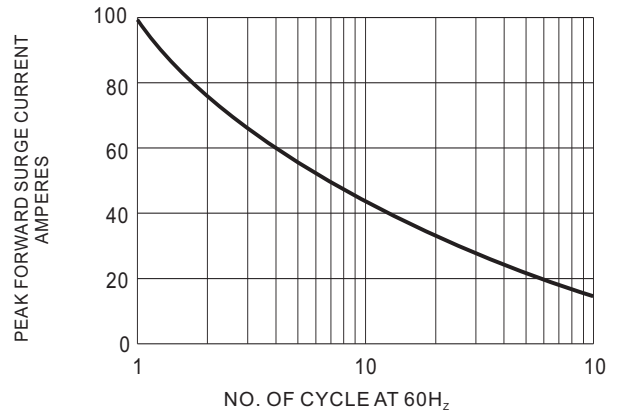


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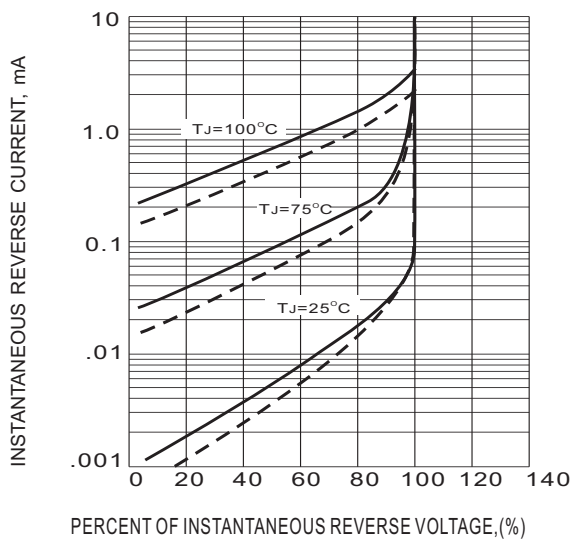
## RATING AND CHARACTERISTIC CURVES



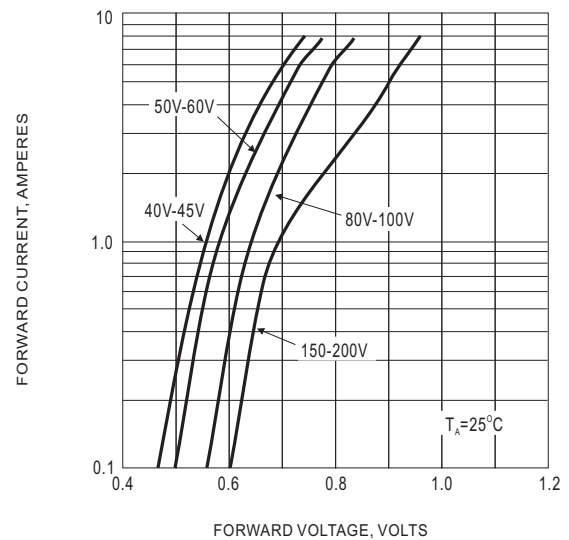
**Fig. 1- FORWARD CURRENT DERATING CURVE**



**Fig. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig. 3-TYPICAL REVERSE CHARACTERISTIC**



**Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**