

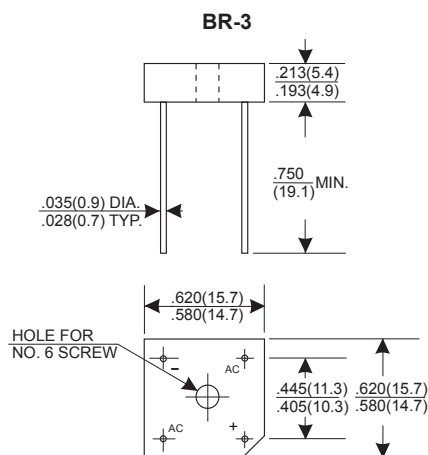
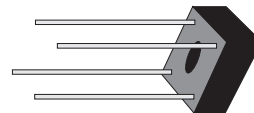
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 3.0 A**

### Features

- Diffused junction
- High current capability
- High case dielectric strength
- High surge current capability
- Ideal for printed circuit board application
- Plastic material has underwriters laboratory flammability classification 94V-O

### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: Marked on body



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

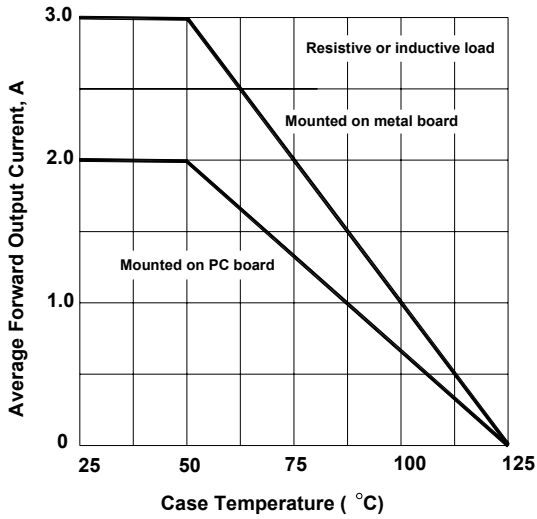
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	BR 305	BR 31	BR 32	BR 34	BR 36	BR 38	BR 310	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Average rectified output current (note1) at $T_C = 50^\circ\text{C}$	$I_O$	3.0							A
Non-repetitive Peak forward surge current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Maximum instantaneous forward voltage drop per leg at 1.5A	$V_F$	1.2							V
Maximum DC reverse current at rated DC blocking voltage per leg	$I_R$	10 1.0							uA mA
Rating for fusing ( $t < 8.3\text{ms}$ )(note 2)	$I^2t$	10							$\text{A}^2\text{s}$
Typical junction capacitance(note3)	$C_j$	55							pF
Typical thermal resistance per leg (note 4)	$R_{\theta JC}$	25							K/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +125							$^\circ\text{C}$

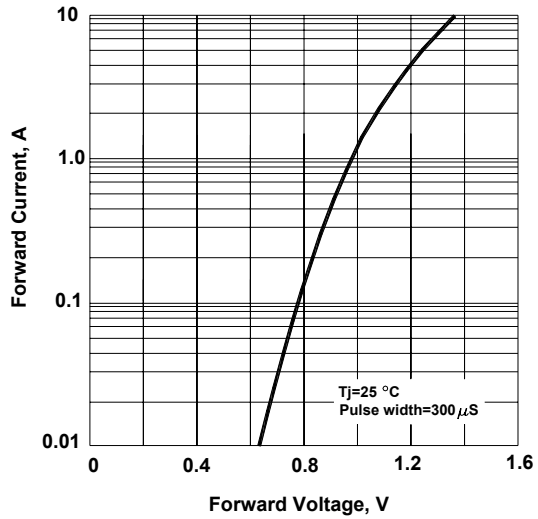
- Notes:
1. Mounted on metal chassis
  2. Non-repetitive, for  $t > 1\text{ms}$  and  $< 8.3\text{ms}$
  3. Measured at 1.0MHz and applied reverse voltage of 4.0V.DC
  4. Thermal resistance junction to case per element



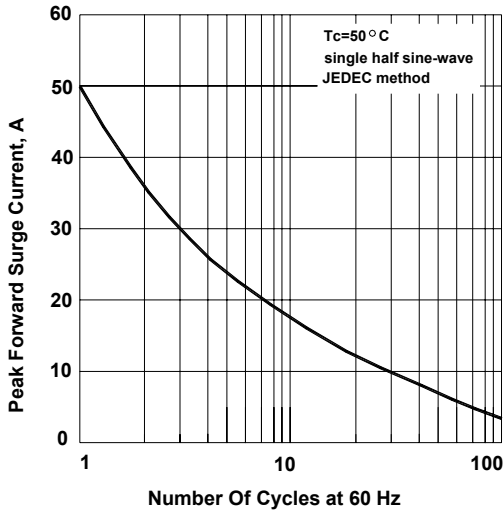
**Forward Current Derating Curve**



**Typical Forward Characteristics, per element**



**Max Non-repetitive Peak Forward Surge Current**



**Typical Reverse Characteristics, per element**

