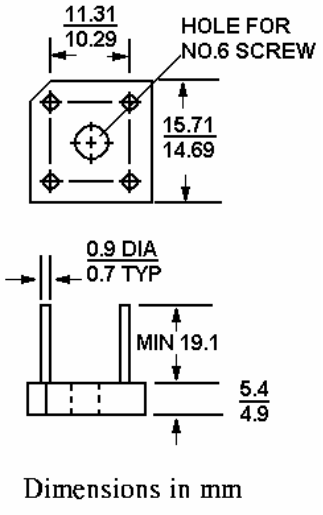
BR305 THRU BR310

3.0A BRIDGE RECTIFIERS



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

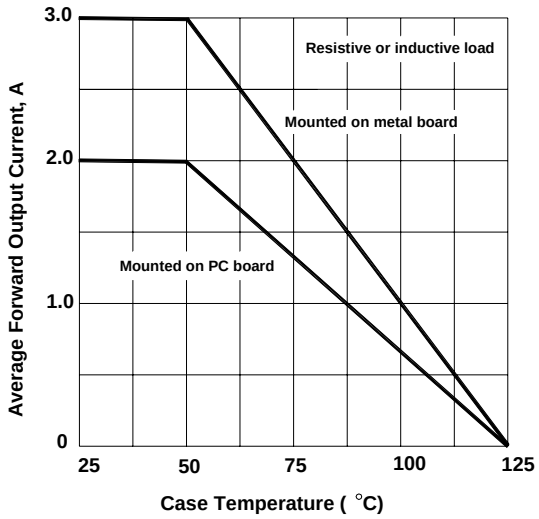
Absolute Maximum Ratings and Characteristics

Rating at 25^{O}C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load, For capacitive load, derate current by 20%.

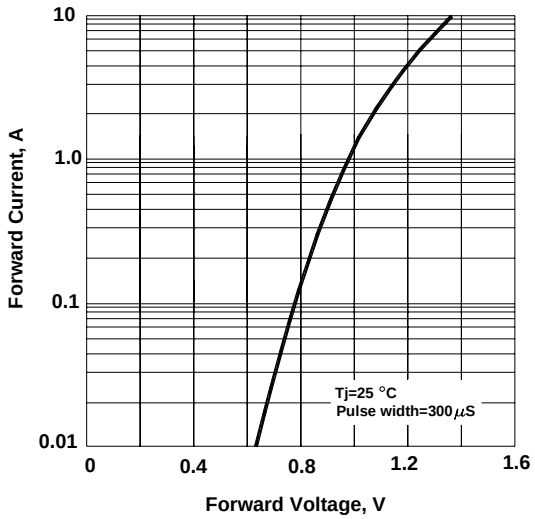
	Symbols	BR 305	BR 31	BR 32	BR 34	BR 36	BR 38	BR 310	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average rectified output current (note1)at T_C = 50^{O}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 T_C = 25^{O}C	I_R	10							uA
at rated DC blocking voltage per leg T_C = 100^{O}C		1.0							mA
Rating for fusing (t<8.3ms)(note 2)	I^2t	10							A^2s
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							^{O}C

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

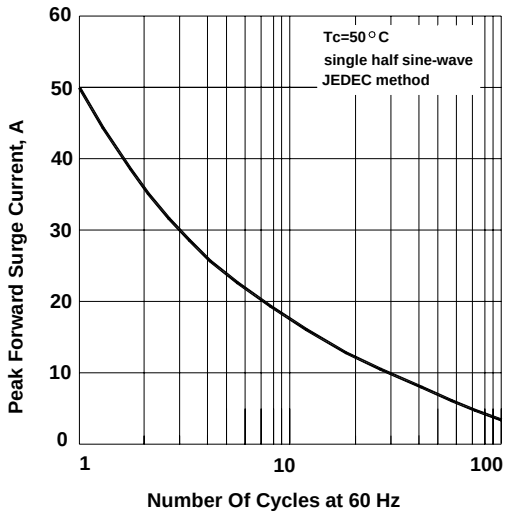
Forward Current Derating Curve



Typical Forward Characteristics, per element



Max Non-repetitive Peak Forward Surge Current



Typical Reverse Characteristics, per element