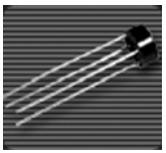
Semitel
Enabling your idea

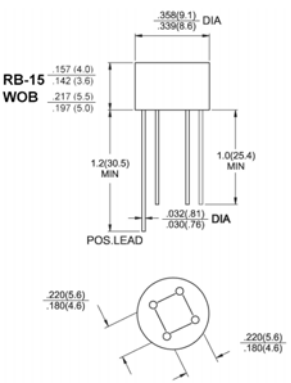
RB151-RB157 / W005-W10 / W005G-W10G / W005M-W10M / W005GM-W10GM

Glass Passivated Single-Phase Bridge Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 1.5 Amperes

Features

- Surge overload ratings to 40 or 50 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction technique results in inexpensive product
- High temperature soldering guaranteed: 265°C / 10 seconds / 0.375" (9.5mm) lead length at 5 lbs. (2.3 kg) tension





Package outline dimensions in inches (millimeters)

Mechanical Data

- Case: Molded plastic
- Lead: solder plated
- Polarity: As marked
- Weight: 1.07 grams (RB-15), 1.10 grams (WOB)

Maximum Ratings and Electrical Characteristics

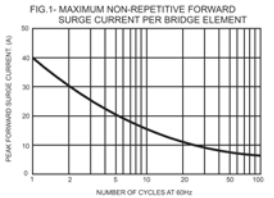
Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

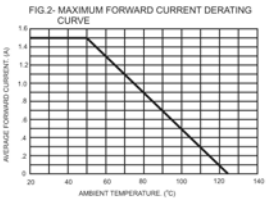
Parameter	Symbols	RB151 / W005 / W005M / W005G / W005GM	RB152 / W01 / W01M / W01G / W01GM	RB153 / W02 / W02M / W02G / W02GM	RB154 / W04 / W04M / W04G / W04GM	RB155 / W06 / W06M / W06G / W06GM	RB156 / W08 / W08M / W08G / W08GM	RB157 / W10 / W10M / W10G / W10GM	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at T_A=50°C	$I_{F(AV)}$	1.5							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	Wxxx or WxxxM 40.0, RB15x, WxxxG & WxxxGM 50.00							Amps
Max. instantaneous forward voltage drop per element at 0.75A	V_F	1.0							Volt
Maximum DC reverse current at rated DC blocking voltage per element T_A=25°C	I_R	10.0 500 (RB15x, Wxxx, WxxxM @T_A=100°C, WxxxG or WxxxGM @T_A=125°C)							uA
Typical thermal resistance per leg (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	36 13							°C/W
Operating junction temperature range	T_J	Wxxx or WxxxM -55 to +125, RB15x, WxxxG & WxxxGM -55 to +150							°C
Storage temperature range	T_{STG}	-55 to +150							°C

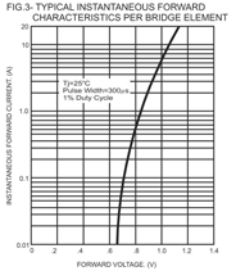
Notes: 1. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2 x 0.2" (5 x 5mm) copper pads

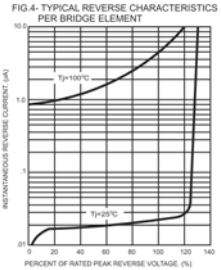
RATINGS AND CHARACTERISTIC CURVES

(T_A = 25ºC unless otherwise noted) - W005 thru W10

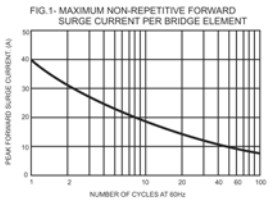


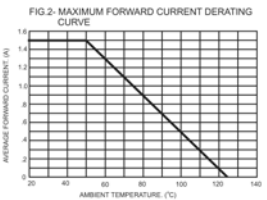


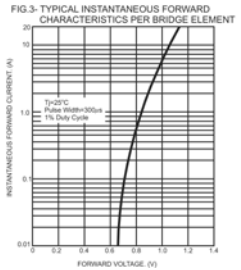


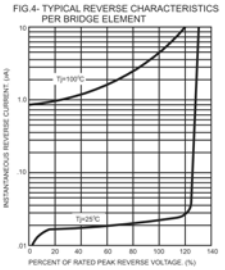


(T_A = 25ºC unless otherwise noted) - W005M thru W10M

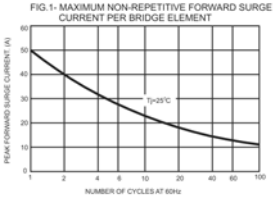


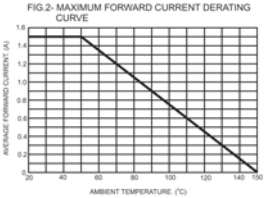


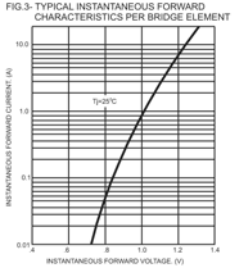


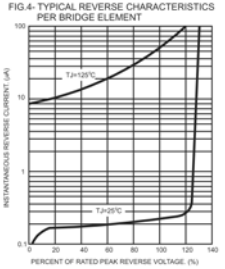


(T_A = 25ºC unless otherwise noted) - RB151 thru RB157, W005G thru W10G









(T_A = 25ºC unless otherwise noted) - W005GM thru W10GM