

# EDCON-COMPONENTS

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



### W005G thru W10G



- 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: 260°C / 10 sec / 0.375" (9.5mm)  
lead length at 5lbs. (2.3 kg) tension

### 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%

	W005G	W01G	W02G	W04G	W06G	W08G	W10G	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge input Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Current T <sub>A</sub> =50°C	1.5							A
Peak Forward Surge Current, 8.3ms singlehalf sine-wave superimposed on rated load	50.0							A
I <sup>2</sup> t Rating for fusing ( t < 8.35 ms)	10.0							A <sup>2</sup> S
Maximum Forward Voltage Drop per Bridge Element at 1.0A	1.0							V
Maximum Reverse Current at Rated T <sub>J</sub> = 25°C	10.0							μA
DC Blocking Voltage per element T <sub>J</sub> =100°C	1.0							mA
Typical Junction capacitance per leg (Note 1) C <sub>J</sub>	24.0							pF
Typical Thermal resistance per leg (Note 2) RθJA	36.0							°C/W
Typical Thermal resistance per leg (Note 2) RθJA	13.0							
Operating Temperature Range T <sub>J</sub>	-55 to +125							°C
Storage Temperature Range T <sub>A</sub>	-55 to +150							°C

### Notes:

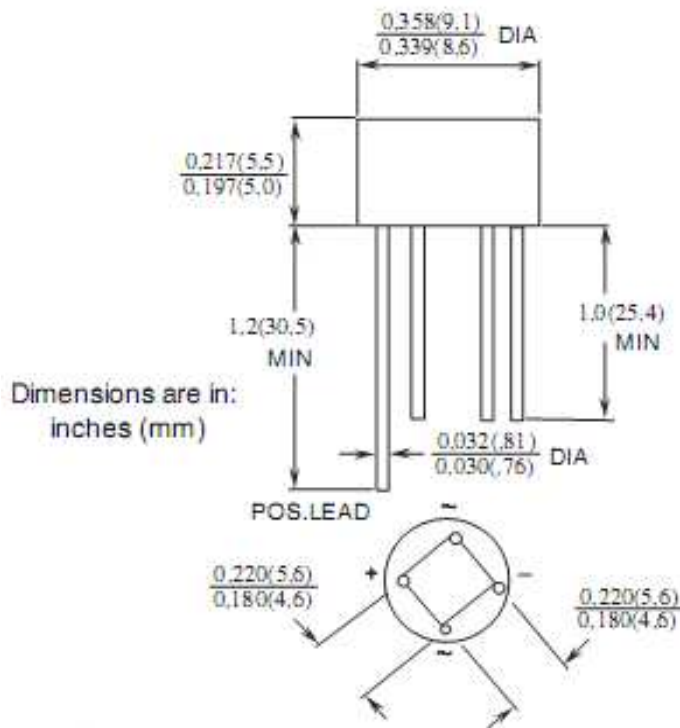
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.47 X 0.47"(12 X 12mm) copper pads.

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## Technical Drawing



## Mechanical Data

- Case: Molded plastic
- Lead: solder plated
- Polarity: As marked
- Weight: 1.10 grams

## Ratings and characteristic curve

(TA = 25 °C unless otherwise noted)

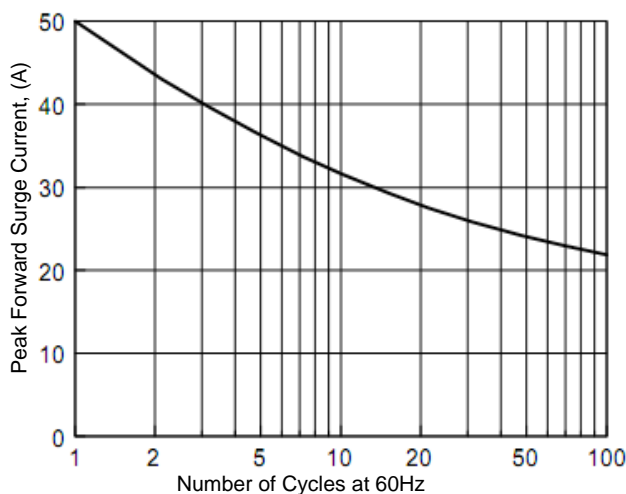


Figure 1. Maximum Forward Surge Current

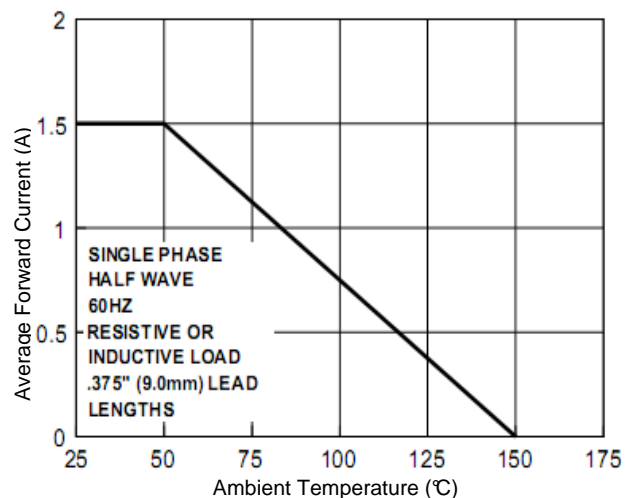


Figure 2. Derating Curve Output Rectified Current

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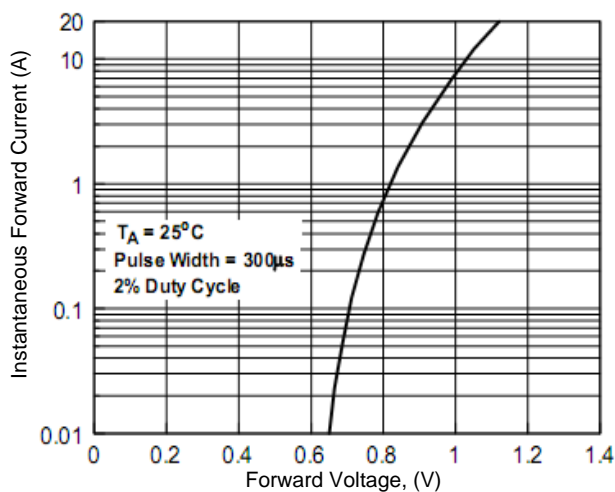


Figure 3. Typical Instantaneous Forward Characteristics

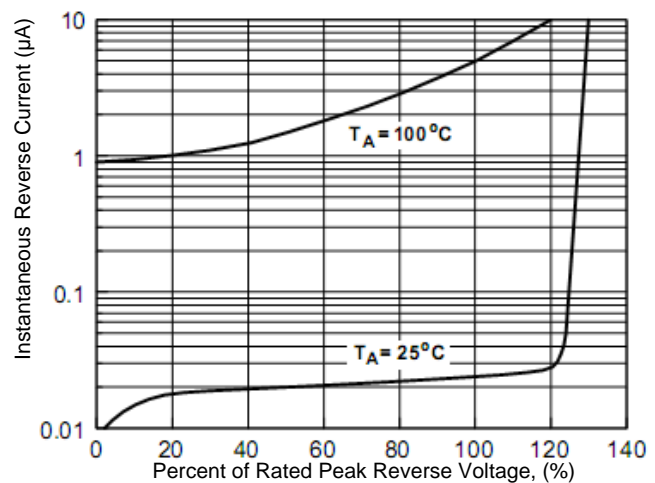


Figure 4. Typical Reverse Characteristics

## Ordering Information

Serie					
E21004	W0G	TU			
	W005G	TR = Tape reel			
	W01G				
	W02G	TU = Tube			
	W04G				
	W06G				
	W08G				
	W10G				

Round Silicon THT