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Jameco Part Number 103018 (W02G)

W005G - W10G

## W005G - W10G

### Features

- Surge overload rating: 50 amperes peak.
- Glass passivated junction.
- Ideal for printed circuit board.
- Reliable low cost construction technique results in inexpensive product.
- UL certified, UL #E96005.



### Bridge Rectifiers (Glass Passivated)

#### Absolute Maximum Ratings\*

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value							Units
		005G	01G	02G	04G	06G	08G	10G	
$V_{RRM}$	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
$V_{RMS}$	Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
$V_R$	DC Reverse Voltage (Rated $V_R$ )	50	100	200	400	600	800	1000	V
$I_{F(AV)}$	Average Rectified Forward Current, $@ T_A = 50^\circ\text{C}$	1.5							A
$I_{FSM}$	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	50							A
$T_{stg}$	Storage Temperature Range	-55 to +150							$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-55 to +150							$^\circ\text{C}$

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Thermal Characteristics

Symbol	Parameter	Value		Units
$P_D$	Power Dissipation	3.47		W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,* per leg	36		$^\circ\text{C}/\text{W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead,* per leg	11		$^\circ\text{C}/\text{W}$

\* Device mounted on PCB with 0.375" (9.5 mm) lead length.

### Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Device		Units
$V_F$	Forward Voltage, per bridge @ 1.0 A	1.0		V
$I_R$	Reverse Current, total bridge @ rated $V_R$	5.0	500	$\mu\text{A}$
	$T_A = 25^\circ\text{C}$			$\mu\text{A}$
	$T_A = 125^\circ\text{C}$			$\mu\text{A}$
	$I^2t$ rating for fusing $t < 8.3$ ms	10		$\text{A}^2\text{s}$
$C_T$	Total Capacitance, per leg $V_R = 4.0$ V, $f = 1.0$ MHz	15		pF

### Typical Characteristics

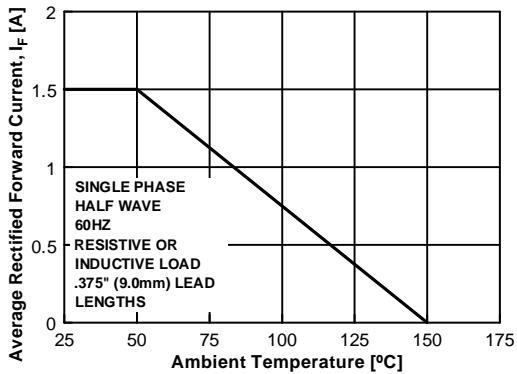


Figure 1. Forward Current Derating Curve

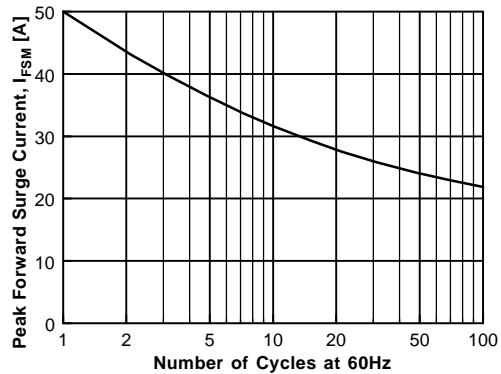


Figure 2. Non-Repetitive Surge Current

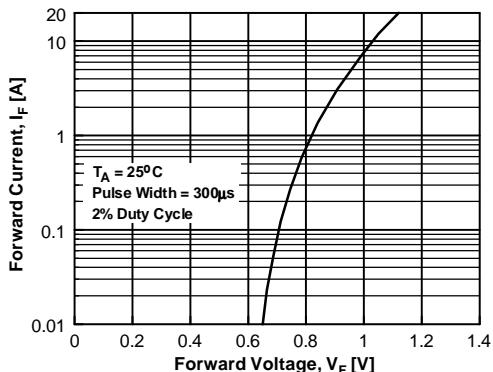


Figure 3. Forward Voltage Characteristics

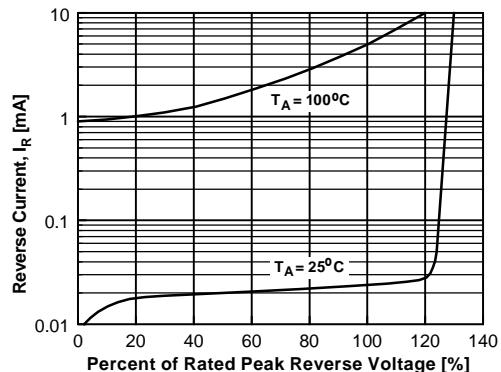


Figure 4. Reverse Current vs Reverse Voltage

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