

# Single Phase Bridge Rectifiers



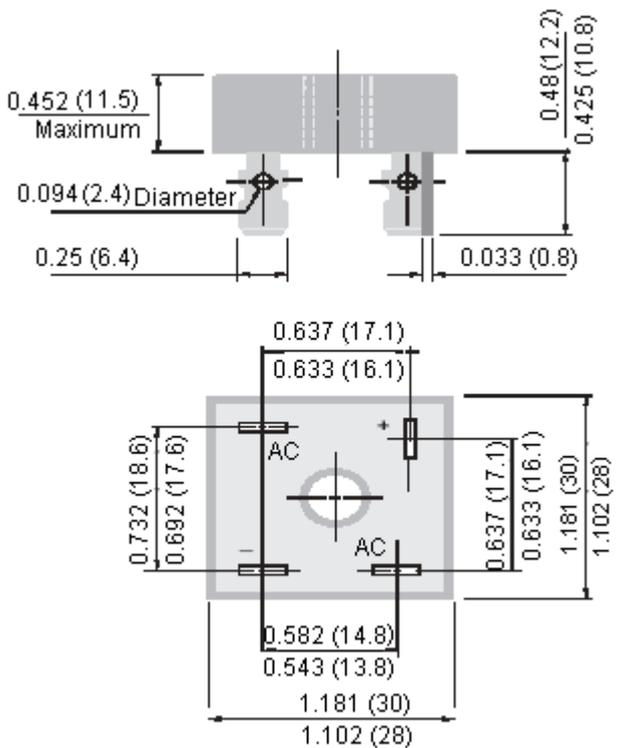
## CM4000 Series



### Features:

- Metal case for maximum heat dissipation
- Surge overload ratings to 400 amperes

### CM Series



Dimensions : Inches (Millimetres)

### Mechanical Data

Case : Metal, electrically isolated  
Terminals : Plated 25 inches faston  
Mounting Position : Any

# Single Phase Bridge Rectifiers



## CM4000 Series

### Maximum Ratings and Electrical Characteristics

Ratings 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	CM4002	CM4006	CM40010	Unit
Maximum Recurrent Peak Reverse Voltage	200	600	1,000	V
Maximum RMS Bridge Input Voltage	140	420	700	
Maximum DC Blocking Voltage	200	600	1,000	
Maximum Average Forward Current at $T_A = 55^\circ\text{C}$	40			A
Non-repetitive Peak Forward Surge Current, Rated Load	400			
Maximum Forward Voltage Per Bridge Element Specified Current at 20 A	1.2			V
Maximum Reverse Current at Rated DC Blocking Voltage Per Element	10			$\mu\text{A}$
$I^2t$ Rating for Fusing ( $t < 8.35 \text{ ms}$ )	664			$\text{A}^2\text{S}$
Typical Thermal Resistance (Figure 3) $R_{\theta\text{JC}}$	2.5			$^\circ\text{C} / \text{W}$
Operating Temperature Range $T_J$	-55 to +150			$^\circ\text{C}$
Storage Temperature Range $T_A$				

Note : \* Unit mounted on metal heat-sink

### Rating and Characteristic Curves

Figure 1 Output Current VS. Case Temperature  
Resistive or Inductive Load  $T_J = 150^\circ\text{C}$

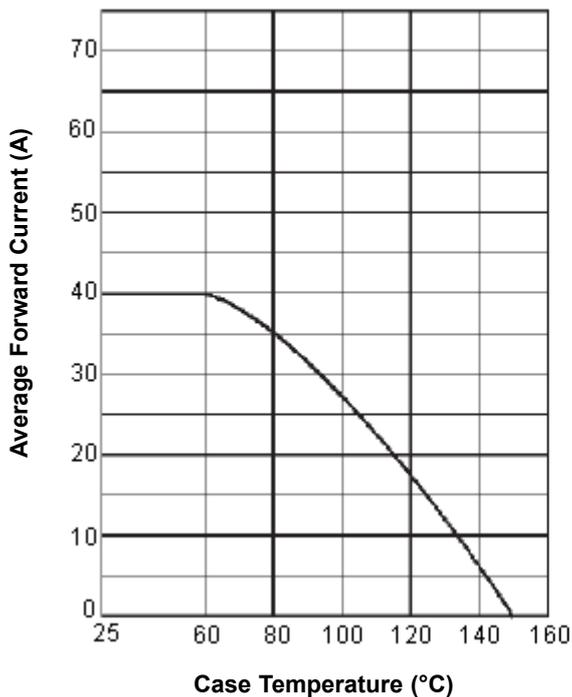
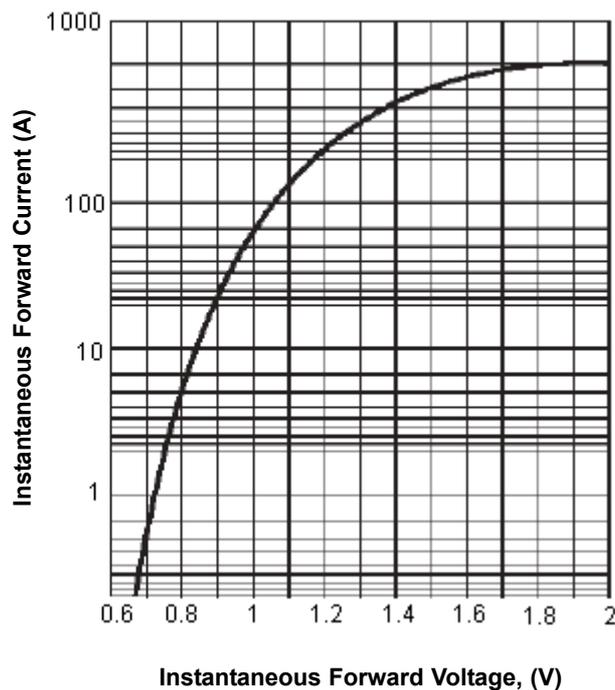


Figure 2 Typical Instantaneous Forward Characteristics at  $T_J = 25^\circ\text{C}$



# Single Phase Bridge Rectifiers



## CM4000 Series

Figure 3 Output Current VS. Ambient Temperature  
Resistive or Inductive Load Bridge Mounted on 8  
Inches x 8 Inches Aluminium Plate 25 Inches Thick

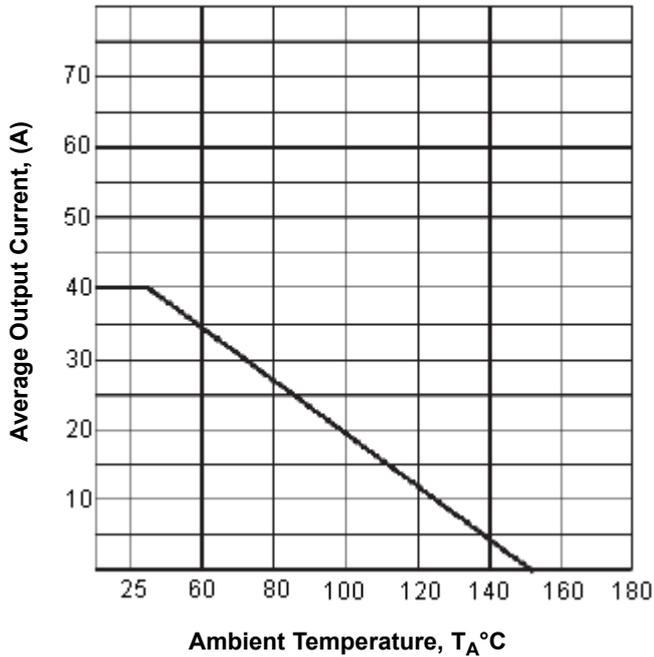
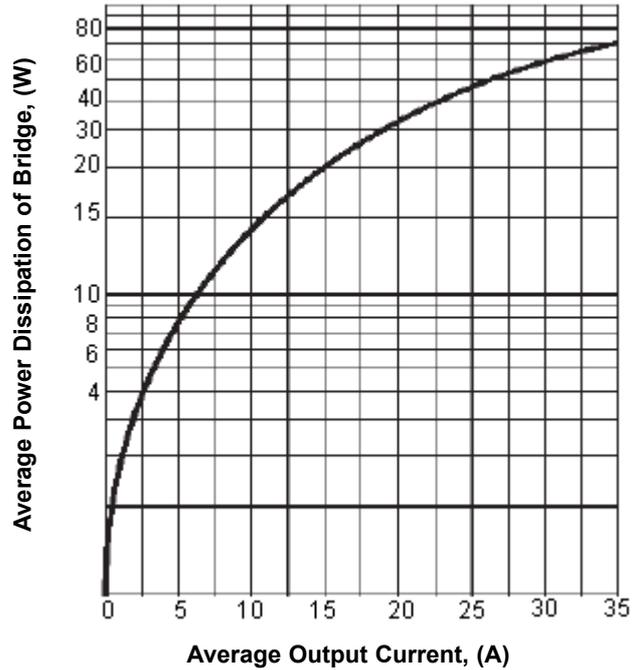


Figure 4 Power Dissipation VS. Average  
Output Current Resistive or Inductive Load  
 $T_J = 150^\circ\text{C}$



### Specification Table

Current Rating (A)	VRRM (V)	Maximum AC Input Voltage (V)	Part Number
40	200	140	CM4002
	600	420	CM4006
	1,000	800	CM40010

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.