

CM4000 Series

Single Phase Bridge Rectifiers

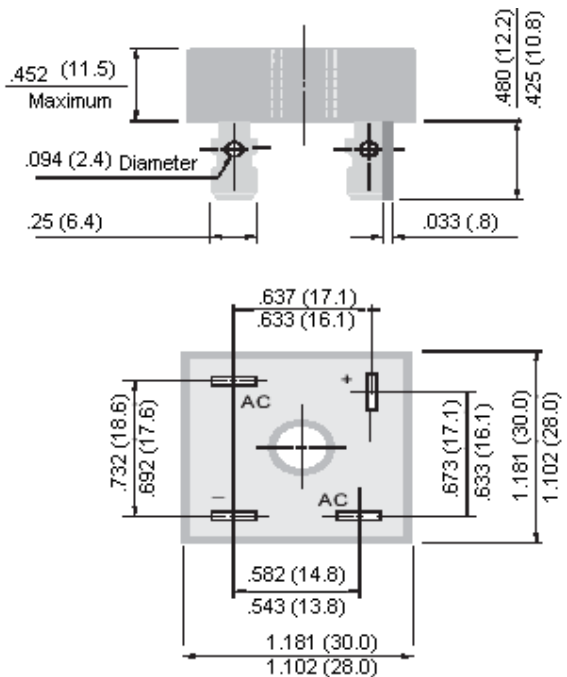
multicomp



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" Faston.
Mounting position : Any.

multicomp

CM4000 Series

Single Phase Bridge Rectifiers



Maximum Ratings and Electrical Characteristics:

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

Parameter	CM4002	CM4006	CM40010	Unit
Maximum recurrent peak reverse voltage	200	600	1000	V
Maximum RMS bridge input voltage	140	420	700	
Maximum DC blocking voltage	200	600	1000	
Maximum average forward current $T_A = 55^\circ\text{C}$	40.0			A
Non-repetitive peak forward surge current, rated load	400			
Maximum forward voltage per bridge element specified current at 20A	1.2			V
Maximum reverse current at rated DC blocking voltage per element	10.0			μA
I ² t rating for fusing (t < 8.35ms)	664			A ² S
Typical thermal resistance (Figure 3) R θ 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 $T_J = 150^\circ\text{C}$

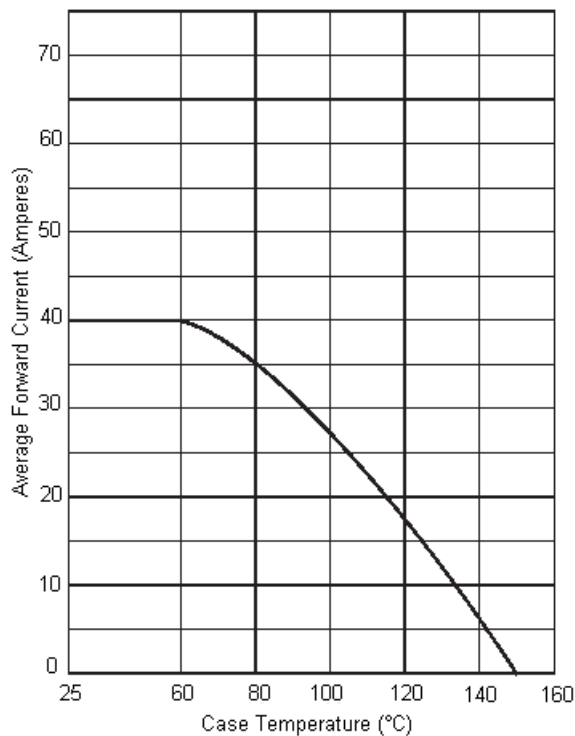
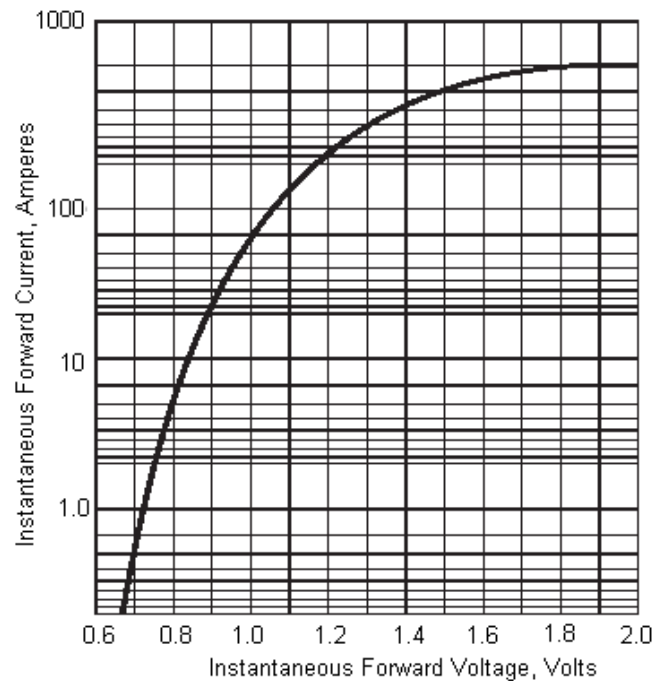


Figure 2 Typical Instantaneous Forward Characteristics at $T_J = 25^\circ\text{C}$



CM4000 Series

Single Phase Bridge Rectifiers



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

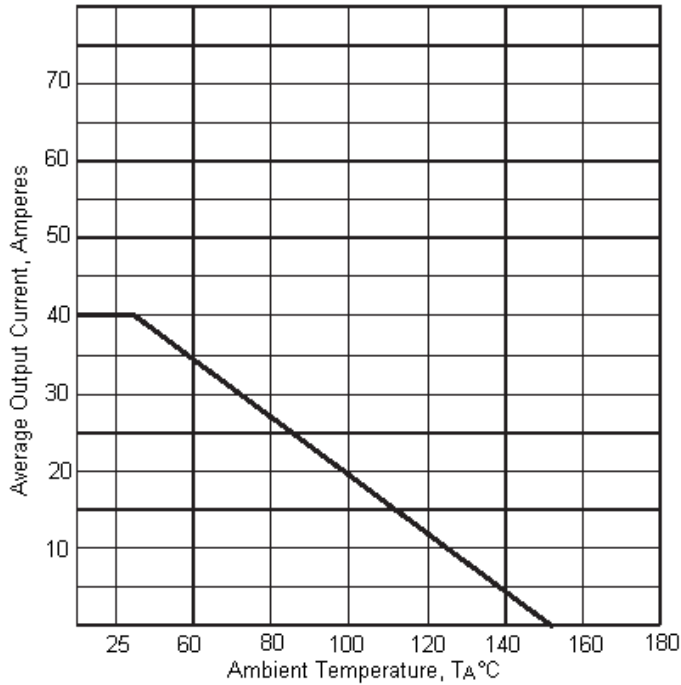
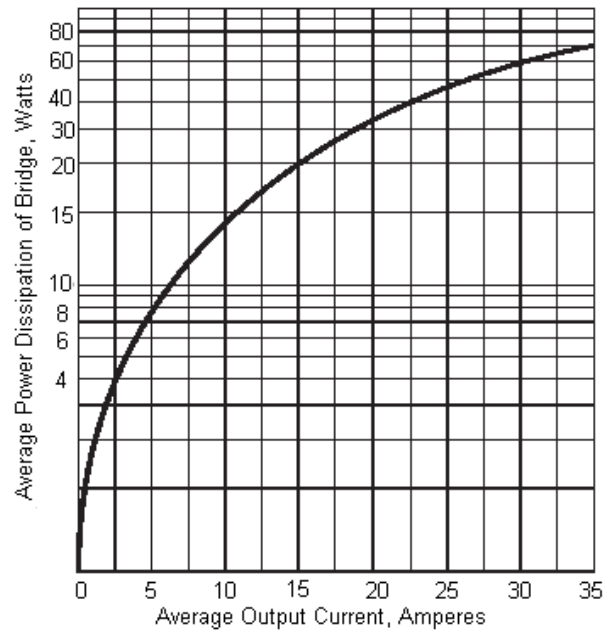


Figure 4 Power Dissipation VS. Average Output Current Resistive or Inductive Load T_J = 150°C



Specifications

Current Rating (A)	VRRM (V)	Maximum AC Input Voltage (V)	Part Number
40	200	140	CM4002
	600	420	CM4006
	1000	800	CM40010



CM4000 Series

Single Phase Bridge Rectifiers



Notes:

International Sales Offices:

 AUSTRALIA – Farnell InOne Tel No: ++ 61 2 9645 8888 Fax No: ++ 61 2 9644 7898	 FINLAND – Farnell InOne Tel No: ++ 358 9 560 7780 Fax No: ++ 358 9 345 5411	 NETHERLANDS – Farnell InOne Tel No: ++ 31 30 241 7373 Fax No: ++ 31 30 241 7333	 SWITZERLAND – Farnell InOne Tel No: ++ 41 1 204 64 64 Fax No: ++ 41 1 204 64 54
 AUSTRIA – Farnell InOne Tel No: ++ 43 662 2180 680 Fax No: ++ 43 662 2180 670	 FRANCE – Farnell InOne Tel No: ++ 33 474 68 99 99 Fax No: ++ 33 474 68 99 90	 NEW ZEALAND – Farnell InOne Tel No: ++ 64 9 357 0646 Fax No: ++ 64 9 357 0656	 UK – Farnell InOne Tel No: ++ 44 8701 200 200 Fax No: ++ 44 8701 200 201
 BELGIUM – Farnell InOne Tel No: ++ 32 3 475 2810 Fax No: ++ 32 3 227 3648	 GERMANY – Farnell InOne Tel No: ++ 49 89 61 39 39 39 Fax No: ++ 49 89 613 59 01	 NORWAY – Farnell InOne Tel No: ++ 45 44 53 66 66 Fax No: ++ 45 44 53 66 02	 UK – BuckHickman InOne ++ 44 8450 510 150 ++ 44 8450 510 130
 BRAZIL – Farnell-Newark InOne Tel No: ++ 55 11 4066 9400 Fax No: ++ 55 11 4066 9410	 HONG KONG – Farnell-Newark InOne Tel No: ++ 852 2268 9888 Fax No: ++ 852 2268 9899	 PORTUGAL – Farnell InOne Tel No: ++ 34 93 475 8804 Fax No: ++ 34 93 474 5288	 UK – CPC ++ 44 8701 202 530 ++ 44 8701 202 531
 CHINA – Farnell-Newark InOne Tel No: ++86 10 6238 5152 Fax No: ++86 10 6238 5022	 IRELAND – Farnell InOne Tel No: ++ 353 1 830 9277 Fax No: ++ 353 1 830 9016	 SINGAPORE – Farnell-Newark InOne Tel No: ++ 65 6788 0200 Fax No: ++ 65 6788 0300	 EXPORT – Farnell InOne Tel No: ++ 44 8701 200 208 Fax No: ++ 44 8701 200 209
 DENMARK – Farnell InOne Tel No: ++ 45 44 53 66 44 Fax No: ++ 45 44 53 66 06	 ITALY – Farnell InOne Tel No: ++ 39 02 93 995 200 Fax No: ++ 39 02 93 995 300	 SPAIN – Farnell InOne Tel No: ++ 34 93 475 8805 Fax No: ++ 34 93 474 5107	
 ESTONIA – Farnell InOne Tel No: ++ 358 9 560 7780 Fax No: ++ 358 9 345 5411	 MALAYSIA – Farnell-Newark InOne Tel No: ++ 60 3 7873 8000 Fax No: ++ 60 3 7873 7000	 SWEDEN – Farnell InOne Tel No: ++ 46 8 730 50 00 Fax No: ++ 46 8 83 52 62	

For enquiries from all other markets

<http://www.farnellinone.com>

<http://www.buckhickmaninone.com>

<http://www.cpc.co.uk>

Disclaimer This data sheet and its contents (the "Information") belong to the Premier Farnell Group (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 2004.

