

Single Phase Bridge Rectifiers



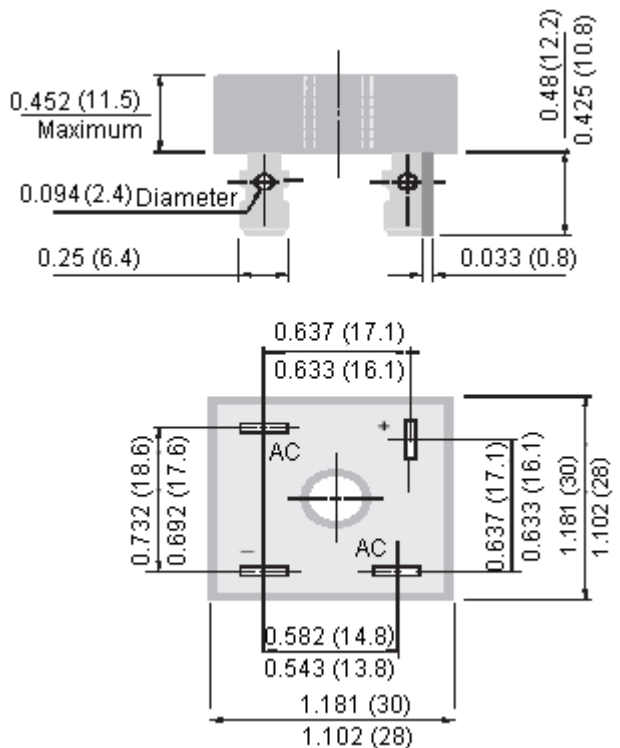
CM4000 Series

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			μA
I^2t Rating for Fusing ($t < 8.35 \text{ ms}$)	664			A^2S
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 $T_J = 150^\circ\text{C}$

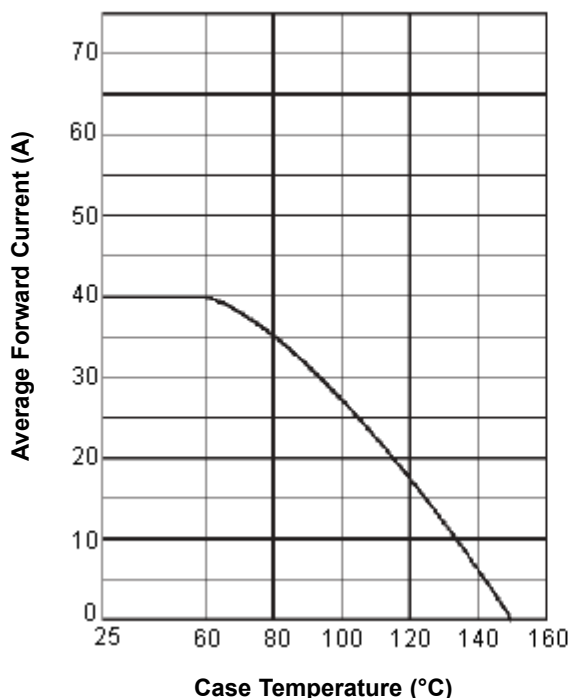
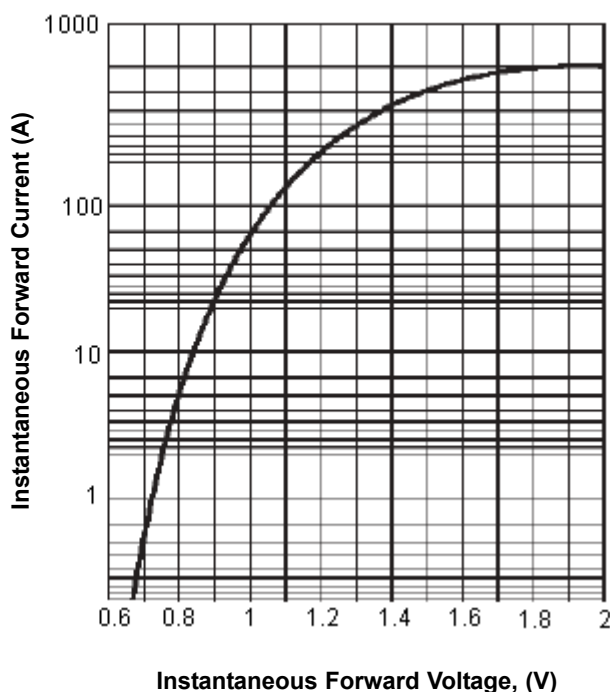


Figure 2 Typical Instantaneous Forward Characteristics at $T_J = 25^\circ\text{C}$



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

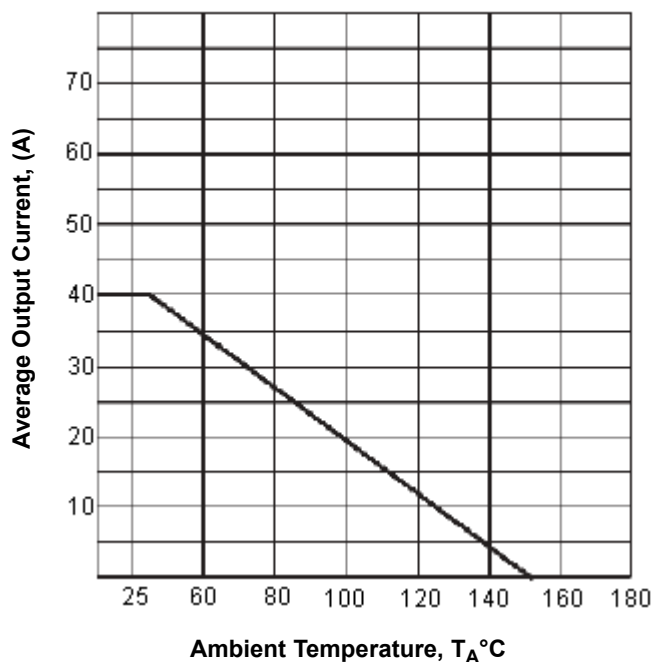
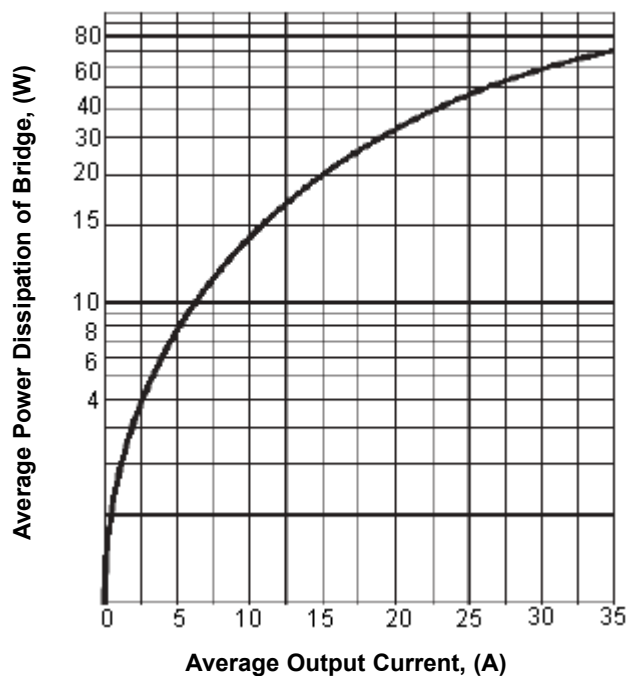


Figure 4 Power Dissipation VS. Average
Output Current Resistive or Inductive Load
 $T_J = 150^{\circ}\text{C}$



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

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