

Single Phase Bridge Rectifiers



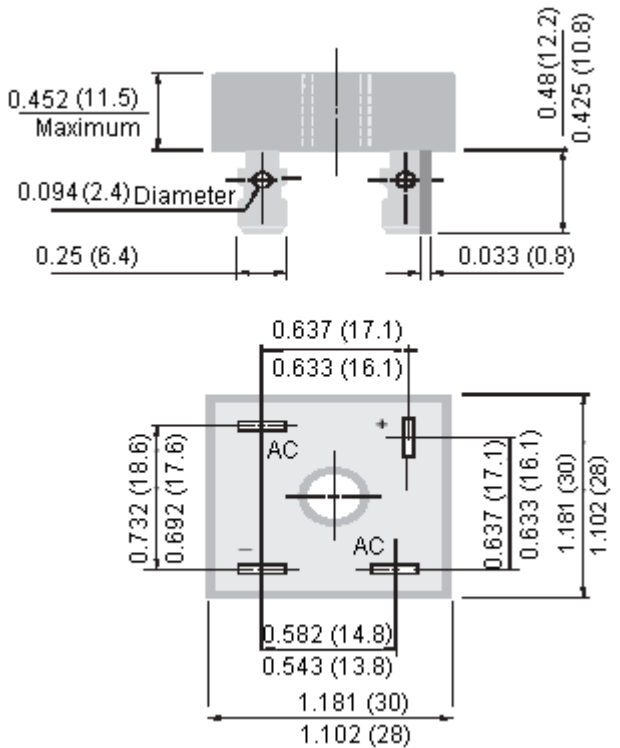
CM2500 Series



Features:

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

CM Series



Dimensions : Inches (Millimetres)

Mechanical Data

Case : Metal
Mounting Position : Any

Single Phase Bridge Rectifiers



CM2500 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	CM2501	CM2502	CM2504	CM2506	CM2508	CM25010	Unit
Maximum Recurrent Peak Reverse Voltage	100	200	400	600	800	1,000	V
Maximum RMS Bridge Input Voltage	70	140	280	420	560	700	
Maximum DC Blocking Voltage	100	200	400	600	800	1,000	
Maximum Average Forward Current at $T_A = 55^\circ\text{C}$	25						A
Non-repetitive Peak Forward Surge Current, Rated Load	300						
Maximum Forward Voltage Per Bridge Element Specified Current at 12.5 A	1.2						V
Maximum Reverse Current at Rated DC Blocking Voltage Per Element	10						μA
I^2t Rating for Fusing ($t < 8.35$ ms)	374						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 $T_J = 150^\circ\text{C}$

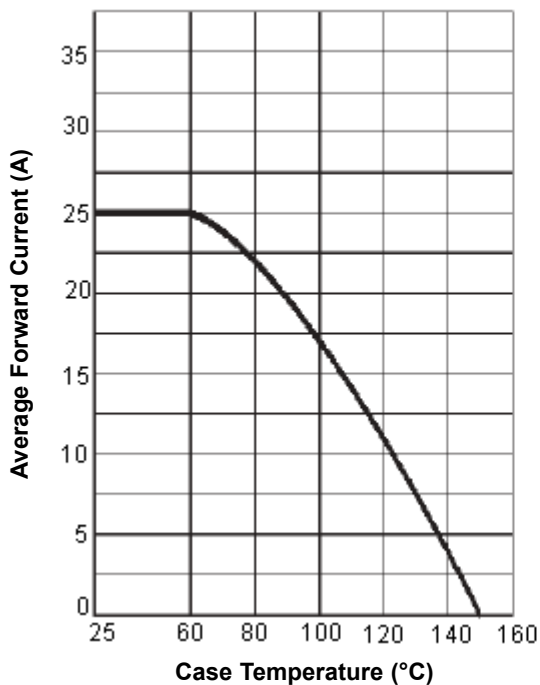
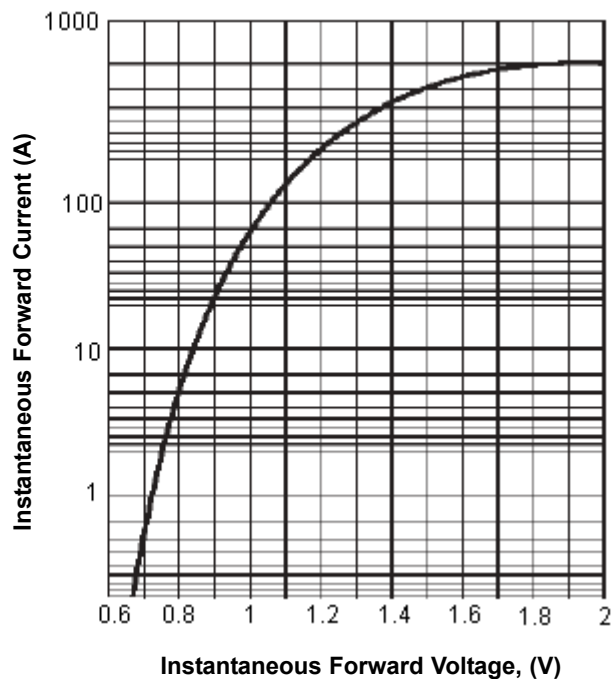


Figure 2 Typical Instantaneous Forward Characteristics at $T_J = 25^\circ\text{C}$



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

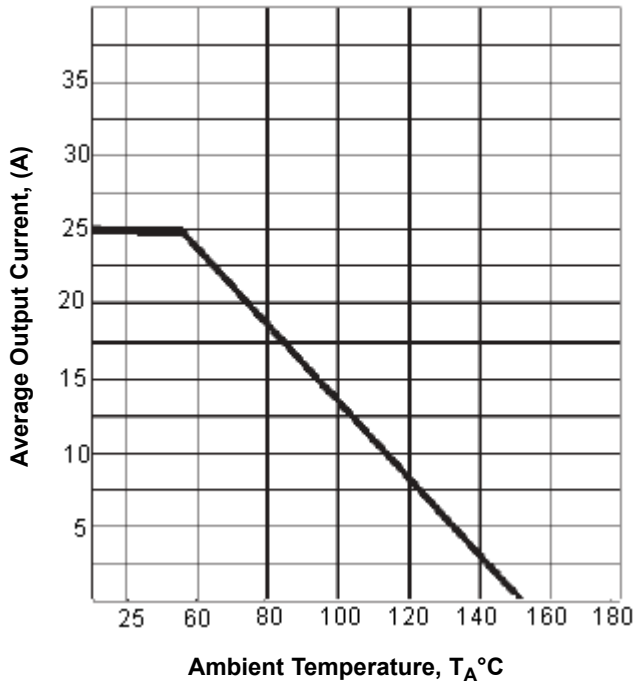
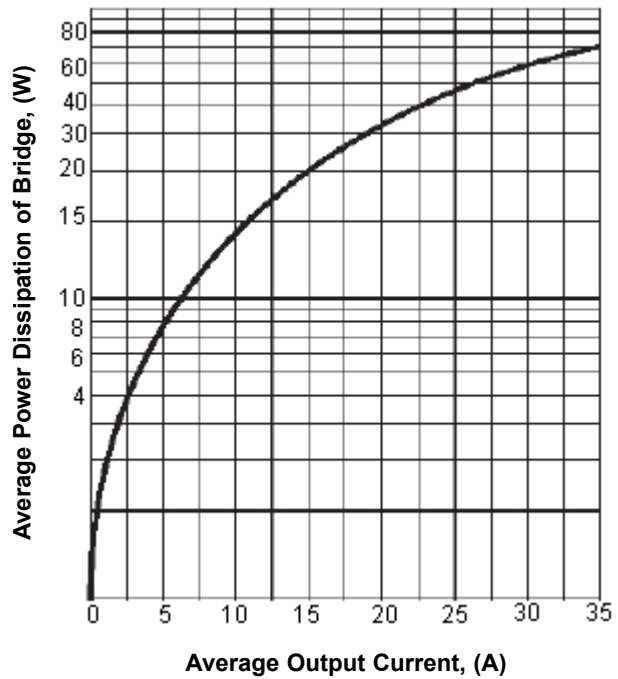


Figure 4 Power Dissipation VS. Average
Output Current Resistive or Inductive Load
 $T_J = 150^\circ\text{C}$



Specification Table

Current Rating (A)	VRRM (V)	Maximum AC Input Voltage (V)	Part Number
25	100	70	CM2501
	200	140	CM2502
	400	280	CM2504
	600	420	CM2506
	800	500	CM2508
	1,000	800	CM25010

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