

Single Phase Bridge Rectifiers



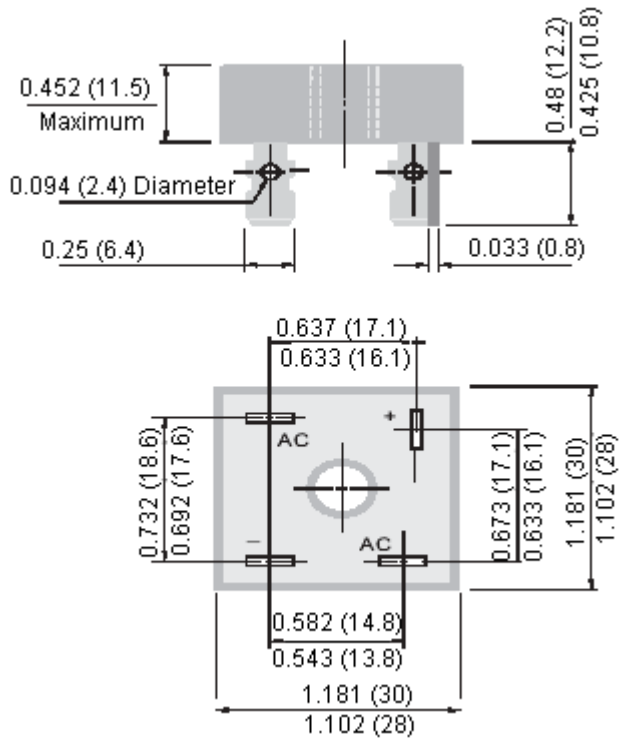
CM3500 Series



Features:

- Electrically isolated 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

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CM3500 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	CM3501	CM3502	CM3504	CM3506	CM3508	CM35010	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 $T_A = 55^\circ\text{C}$	35						A
Non-Repetitive Peak Forward Surge Current, Rated Load	400						
Maximum Forward Voltage Per Bridge Element specified Current at 17.5 A	1.2						V
Maximum Reverse Current at Rated DC Blocking Voltage Per Element	10						μA
I^2t Rating for Fusing ($t < 8.35 \text{ ms}$)	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 $T_J = 150^\circ\text{C}$

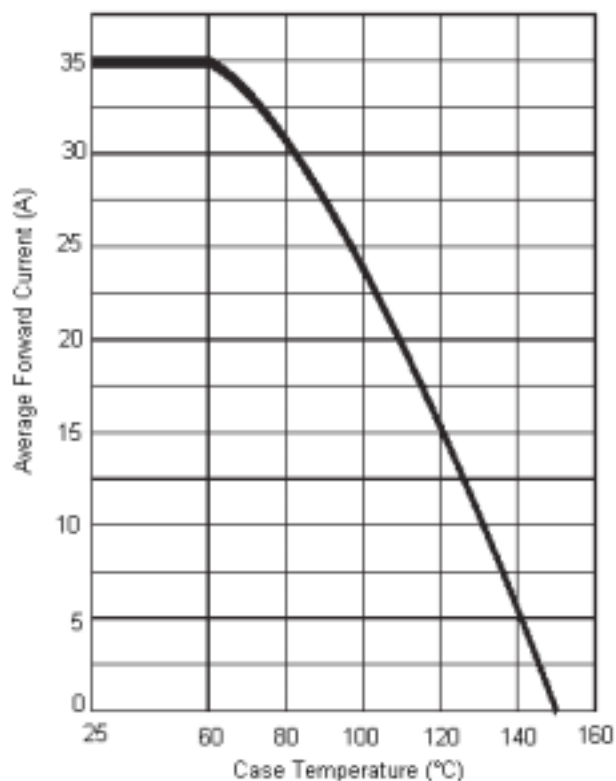
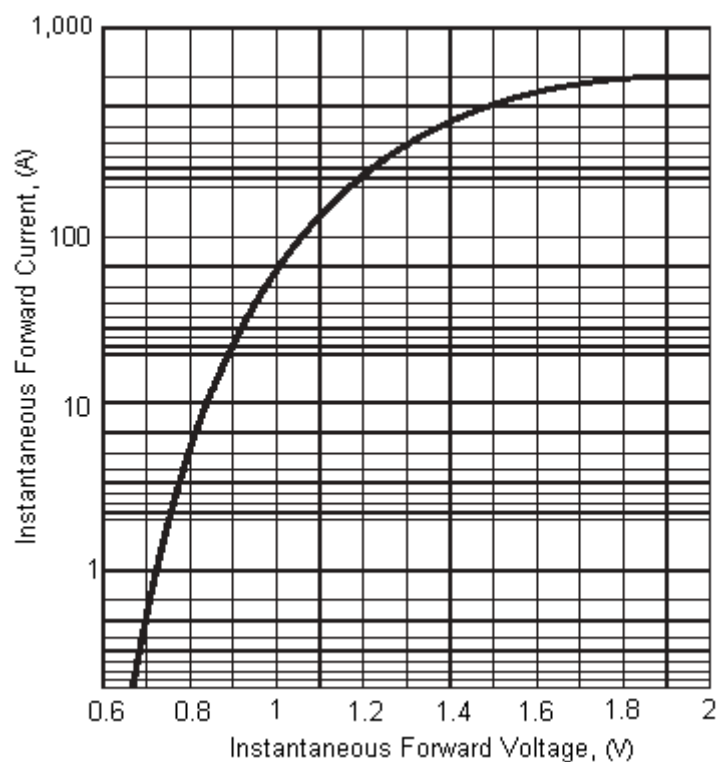


Figure 2 Typical Instantaneous Forward Characteristics at $T_J = 25^\circ\text{C}$



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

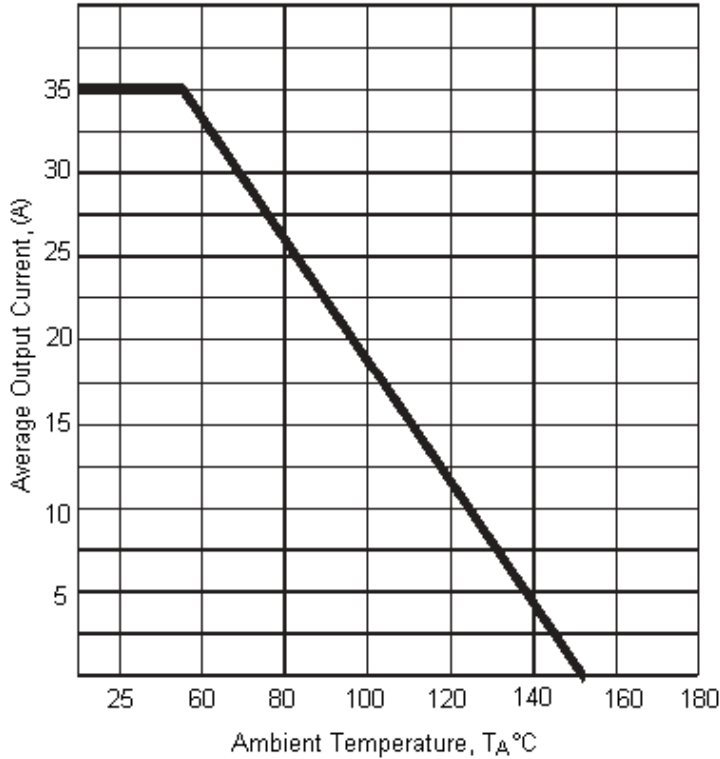
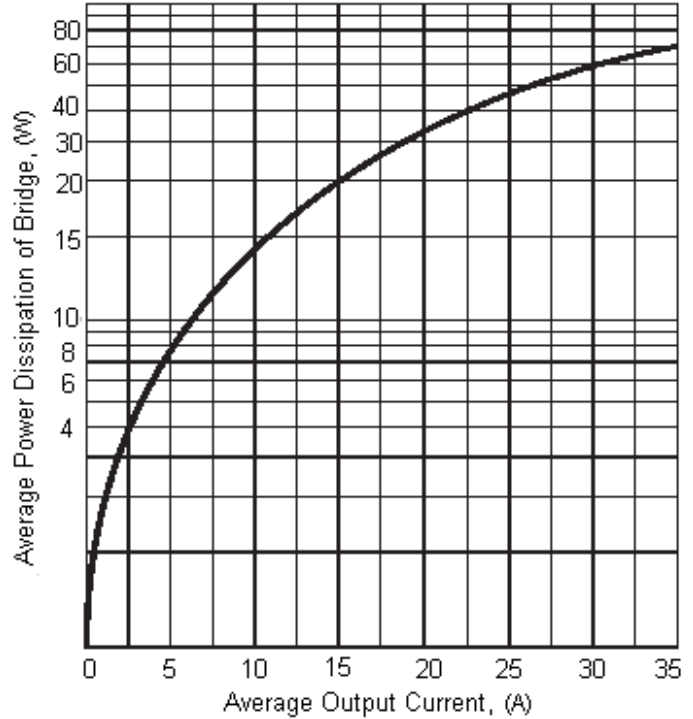


Figure 4 Power Dissipation VS. Average Output Current Resistive or Inductive Load $T_J = 150^\circ\text{C}$



Specification Table

Current Rating (A)	VRRM (V)	Maximum AC Input Voltage (V)	Part Number
35	100	70	CM3501
	200	140	CM3502
	400	280	CM3504
	600	420	CM3506
	800	500	CM3508
	1,000	800	CM35010

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