

Single Phase Bridge Rectifiers



CM5000 Series

Features:

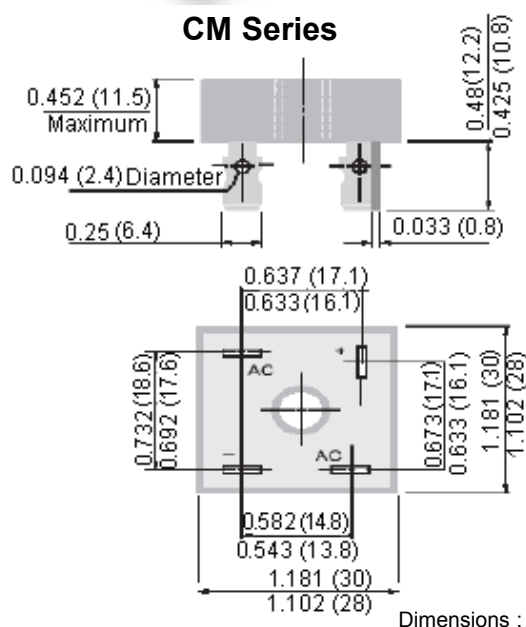
- Metal case for maximum heat dissipation
- Surge overload ratings to 400 amperes

Mechanical Data :

Case : Metal
Terminals : Plated 25 inches Faston
Mounting position : Any



CM 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	CM5000	CM5002	CM5006	CM50010	Unit
Maximum recurrent peak reverse voltage	50	200	600	1,000	V
Maximum RMS bridge input voltage	35	140	420	700	
Maximum DC blocking voltage	50	200	600	1,000	
Maximum average forward current T _A = 55°C	50				A
Non-repetitive peak forward surge current, rated load	400				
Maximum forward voltage per bridge element specified current at 25 A	1.2				V
Maximum reverse current at rated DC blocking voltage per element	10				μA
I ² t rating for fusing (t <8.35 ms)	664				A ² S
Typical thermal resistance (Figure 3) RθJC	2.5				°C / W
Operating temperature range T _J	-55 to +150				°C
Storage temperature range T _A					

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Rating and Characteristic Curves

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

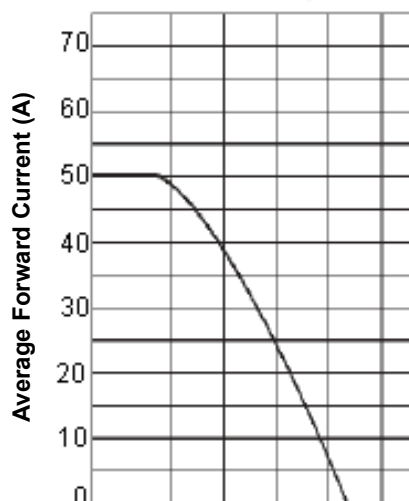


Figure 2 Typical Instantaneous Forward Characteristics at $T_J = 25^\circ\text{C}$

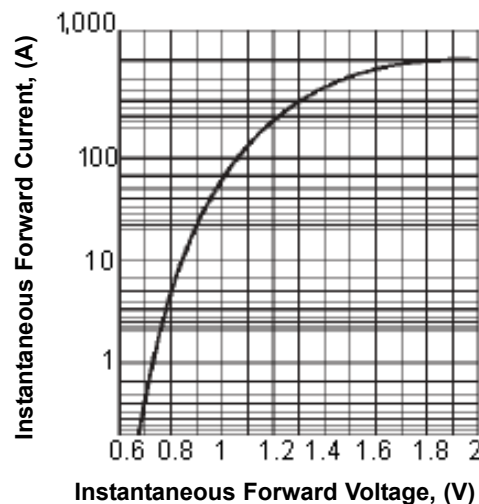


Figure 3 Output Current VS. Ambient Temperature
Resistive or Inductive Load Bridge Mounted on 8×8 inches Aluminium Plate 25 inches Thick

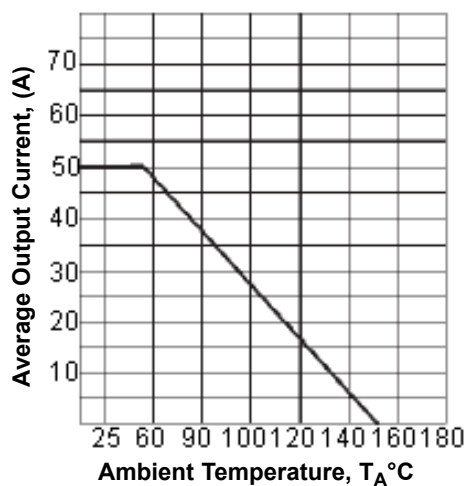
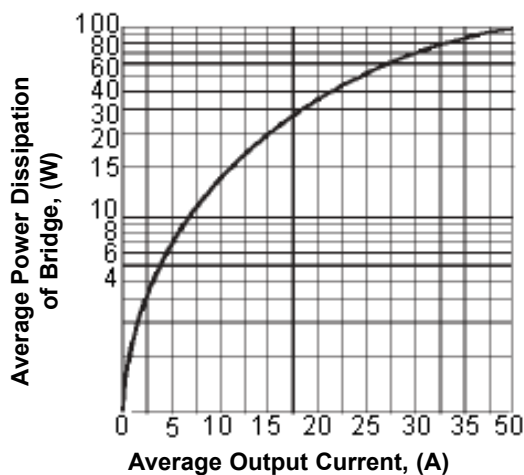


Figure 4 Power Dissipation VS. Average Output Current
Resistive or Inductive Load $T_J = 150^\circ\text{C}$



Specification Table

Current Rating (A)	VRRM (V)	Maximum AC Input Voltage (V)	Part Number
50	50	35	CM5000
	200	140	CM5002
	600	420	CM5006
	1,000	800	CM50010

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