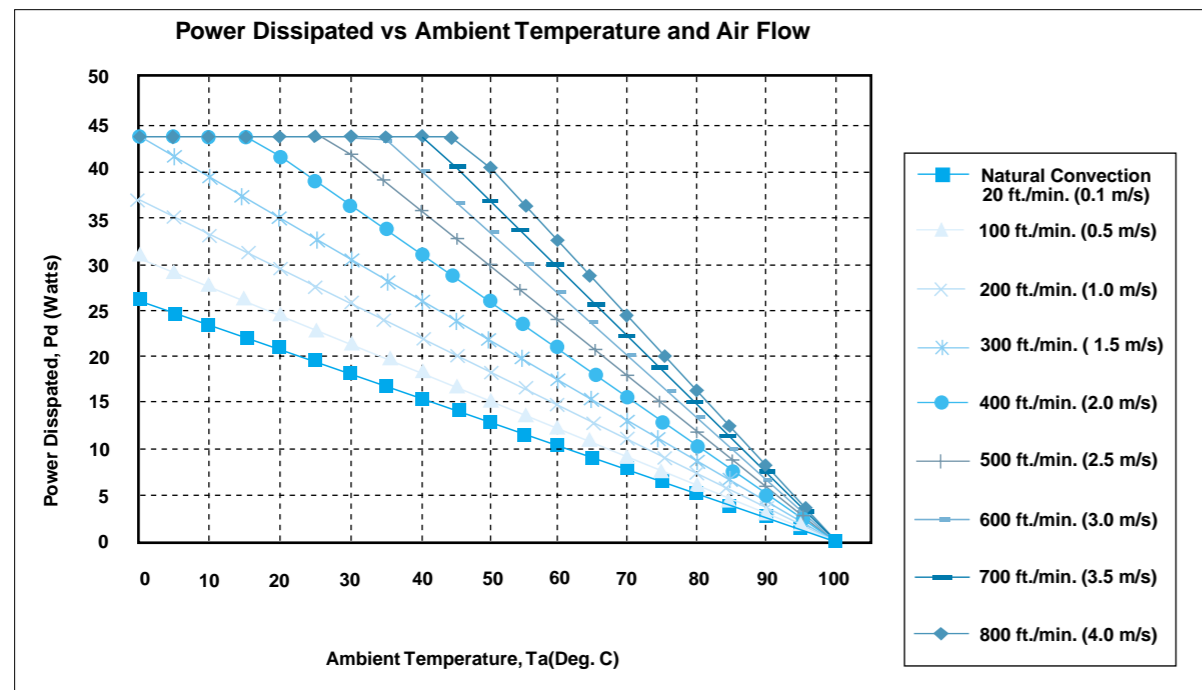


## Application Note

### Derating

The operating case temperature range of the CFB200 series is -40°C to +100°C. When operating the CFB200 series, proper derating or cooling is needed.

Following is the derating curve of CFB200 without heat sink; Airflow Along Width (Transverse)



Forced Convection Power Derating with No Heat Sink; Airflow Along Width (Transverse)

Where:

The power dissipation (Pd):

$$Pd = Pi - Po = Po (1 - \eta) / \eta$$

The thermal resistance are list below:

Chart of Thermal Resistance vs Air Flow:

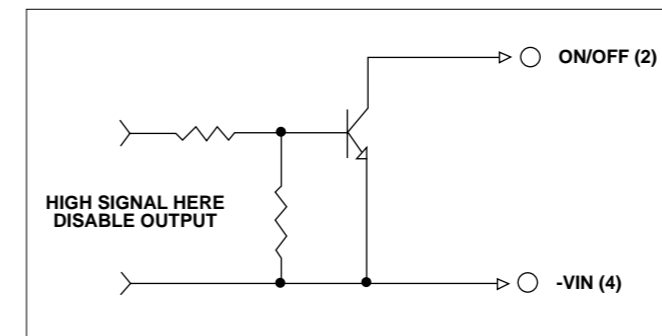
AIR FLOW RATE	TYPICAL Rca
Natural Convection 20ft./min. (0.1m/s)	3.82 °C/W
100 ft./min. (0.5m/s)	3.23 °C/W
200 ft./min. (1.0m/s)	2.71 °C/W
300 ft./min. (1.5m/s)	2.28 °C/W
400 ft./min. (2.0m/s)	1.92 °C/W
500 ft./min. (2.5m/s)	1.68 °C/W
600 ft./min. (3.0m/s)	1.50 °C/W
700 ft./min. (3.5m/s)	1.35 °C/W
800 ft./min. (4.0m/s)	1.23 °C/W

The temperature rise ( $\Delta T$ ):

$$\Delta T = Pd * Rca$$

## Remote ON/OFF Control

The CFB200 Series allows the user to switch the module on and off electronically with remote on/off feature. The CFB200 Series are available in "positive logic" or "negative logic" (option).

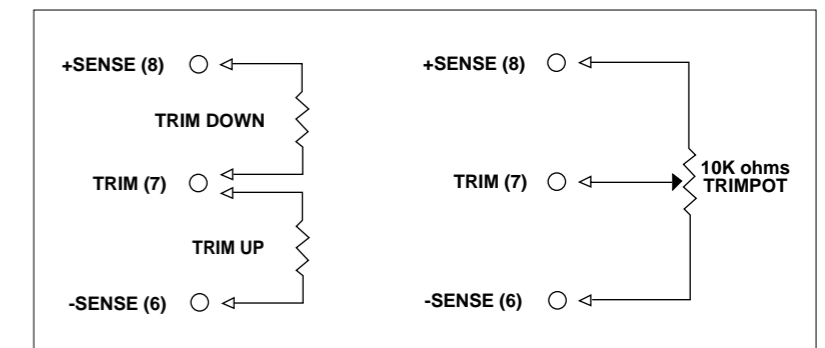


Logic Table

Logic State (Pin 2)	Negative Logic	Positive Logic
Logic Low - Switch Closed	Module on	Module off
Logic High - Switch Open	Module off	Module on

## External Output Trimming

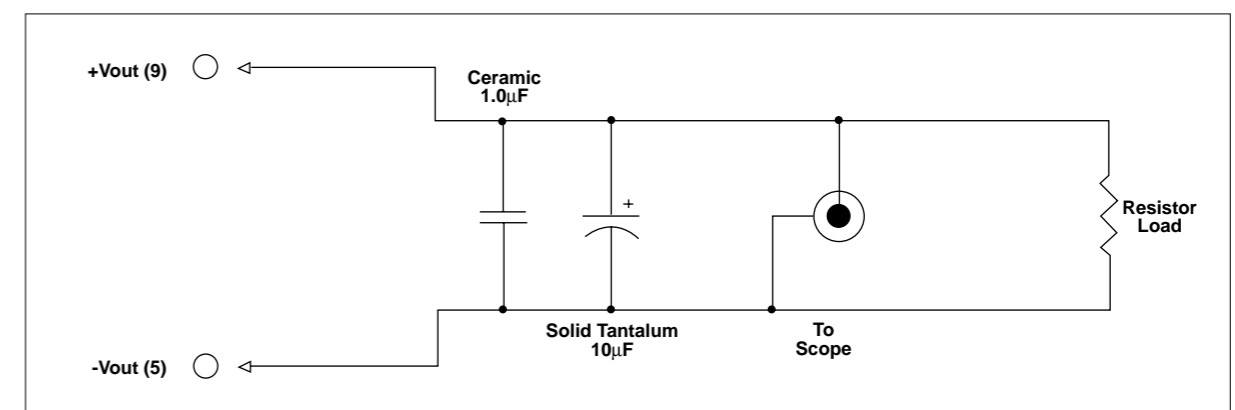
Output may optionally be externally trimmed ( $\pm 10\%$ ) with a fixed resistor or an external trimpot as shown.



External Output

## Output Noise

The output noise is measured with 10 $\mu$ F tantalum capacitor and 1.0 $\mu$ F ceramic capacitor across output.



Output Noise Test Circuit schematic