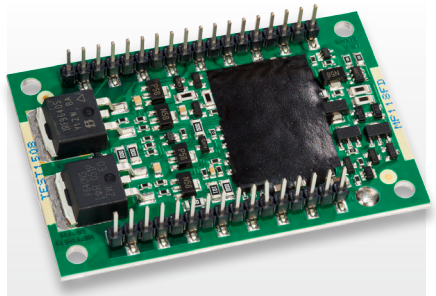
MP118FD

200V, 10A High Power Bandwidth Amplifier With Over Current Shut Down



34-PIN DIP PACKAGE STYLE FD

Footprint 55.8mm x 41.4mm

FEATURES

- High voltage operation 200V
- High output current 10A continuous, 12A PEAK
- High power bandwidth 140kHz
- Low quiescent current 26mA typical
- High maximum internal power dissipation 100W
- Advanced circuit protection including a new over current shut down function
- Low cost
- Open frame packaging form factor

Product Overview

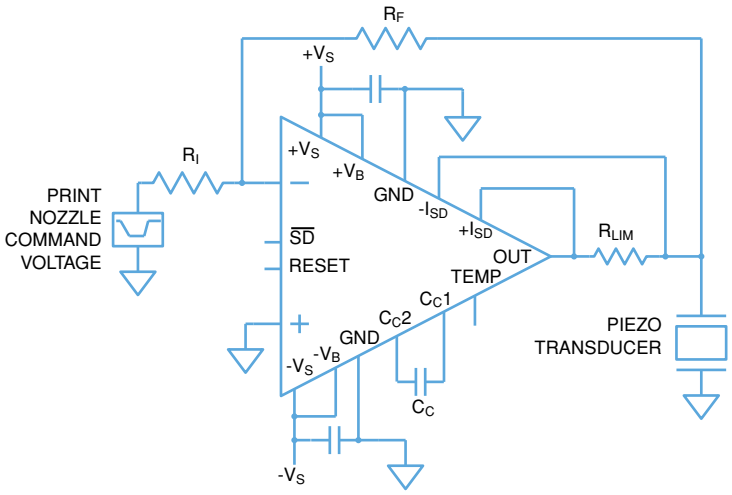
The MP118FD is a low cost, low quiescent current power operational amplifier that integrates several new layers of onboard circuit protection including over current shut down. Featuring a surface mount, open frame packaging design with a footprint measuring just 26cm^2 (4in^2), the MP118FD exhibits just 26mA of quiescent current and is capable of 100W of internal power dissipation.

Based on a sibling amplifier the MP108FD, the MP118FD introduces several new safe guards including temperature monitoring, temperature shut down and external shut down. The over current limit function available with the MP108FD has been replaced by an over current shut down functionality for better short circuit and system protection. This will protect the power amplifier from over stress due to excessive current and unsafe power dissipation. Onboard temperature monitoring circuitry, also new, enables the MP118FD to shut down the system before any permanent damage can occur.

In terms of electrical performance, the MP118FD does not disappoint. The product is compatible with supplies up to 200V, is capable of 10A of continuous output current, or 12A PEAK, and has a power bandwidth of 140kHz. This combination of current, voltage and banwidth makes the device an ideal solution for piezo transducer drive applications.

Typical Application

With 140kHz power bandwidth and 10A of continuous output current, the MP118FD is a targeted choice for piezo drive applications, specifically inkjet print heads. Other applications include industrial instrumentation, manufacturing automation, reflectometers and ultra-sound transducer drives.



MP118FD

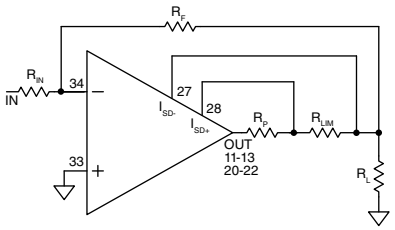
200V, 10A High Power Bandwidth Amplifier With Over Current Shut Down

Product Specifications

Parameter	MP118FD
Maximum Supply Voltage	200V
Output Current, continuous (case ≤+85°C)	10A
Output Current, PEAK (case ≤+85°C)	12A
Quiescent Current, typical	26mA
Operating Temperature (case)	-40°C to +100°C
Maximum Internal Power Dissipation	100W
Power Bandwidth at 180Vp-p typical	140kHz
Package	Open Frame, FD Size
Order Code	MP118FD

Advanced Circuit Protection

Designed to improve upon the onboard protection features of the MP108FD, the MP118FD will not just limit the current when put into an over current situation. Instead, the MP118FD will completely shut down the device's output drivers, and therefor protect the unit from over-stress due to excessive current and unsafe power dissipation. Other new protection features include temperature monitoring circuitry so the device will shut down the system before any permanent damage can occur.



When the MP118FD detects an over current, the amplifier shuts down completely and requires a RESET pulse or power cycle to re-start operation

Packaging, Evaluation Kit

The MP118FD is a unique product design using a surface mount, open frame package design. The package frame has 34 external pin connects. The open frame concept utilizes a copper circuit layer and isolated metal substrate (IMS) to provide exceptional thermal management. The evaluation kit for the MP118FD is sold fully assembled to make prototyping simple and quick.

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