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RH1185AMK - Negative Regulator with Adjustable Current Limit

Features

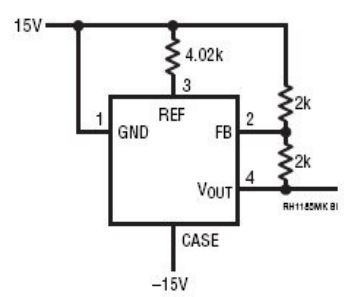
ABSOLUTE MAXIMUM RATINGS

(Note 1)

Input Voltage.....	35V
Input-Output Differential.....	30V
FB Voltage.....	7V
REF Voltage.....	7V
Output Voltage.....	30V
Output Reverse Voltage.....	2V
Operating Ambient Temperature Range...	-55°C to 125°C
Operating Junction Temperature Range	
Control Section.....	-55°C to 150°C
Power Transistor Section.....	-55°C to 175°C
Storage Temperature Range.....	-65°C to 150°C
Thermal Resistance Junction to Case	
TO-3 Control Area.....	1°C/W
Power Transistor.....	3°C/W
Lead Temperature (Soldering, 10 sec).....	300°C

Typical Application

BURN-IN CIRCUIT



Description

The RH1185AMK is a 3A low dropout regulator with adjustable current limit and remote sense capability. It can be used as a positive

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DOCUMENTATION

Datasheet

- RH1185AMK - Negative Regulator with Adjustable Current Limit
<http://cds.linear.com/docs/Datasheet/RH1185amkfa.pdf>
- RH1185MK DICE/DWF SPECIFICATION
http://cds.linear.com/docs/Datasheet/RH1185MK_DICE.pdf

Spec Notice

- RH1185AMK - SPEC NO. 05-08-5206
[http://cds.linear.com/docs/Spec Notice/RH1185AMK_05-08-5206 SPEC REV_ B.pdf](http://cds.linear.com/docs/Spec%20Notice/RH1185AMK_05-08-5206_SPEC_REV_B.pdf)
- RH1185AMK DICE - SPEC NO. 05-08-5232
[http://cds.linear.com/docs/Spec Notice/RH1185AMK DIE CAN SAM 05-08-5232 DICE SPEC.pdf](http://cds.linear.com/docs/Spec%20Notice/RH1185AMK_DIE_CAN_SAM_05-08-5232_DICE_SPEC.pdf)

regulator with floating input or as a standard negative regulator with grounded input. The output voltage range is 2.5V to 25V, with $\pm 1\%$ accuracy on the internal reference voltage.

The RH1185AMK uses a saturation-limited NPN transistor as the pass element. This structure gives the linear dropout characteristics of a FET pass element with significantly less die area. High efficiency is maintained by using special anti-saturation circuitry that adjusts base drive to track load current.

The on-resistance is typically 0.25Ω . Accurate current limit is programmed with a single $1/8W$ external resistor, with a range of zero to three amperes. A second, fixed internal limit circuit prevents destructive currents if the programming current is accidentally overranged.

The RH1185AMK has all the protection features of previous LTC regulators, including power limiting and thermal shutdown.

Applications

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