New Era Electronics
A division of New Era Group Inc.
The Power . . . The Vision

October 1987

79HG NEGATIVE 5 AMP VOLTAGE REGULATOR

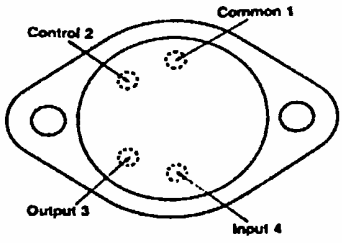
DESCRIPTION

The 79HG negative 4 terminal adjustable linear voltage regulator is capable of delivering a continous load current in excess of -5 amperes over an output range of -24 to -2.11 volts. The 79HG has built-in protection features such as output current limiting and thermal overload . If external conditions exceed the 79HG's capabilities (see absolute maximums), the device temporarily shuts down protecting itself and the load circuit until the fault is removed. This feature eliminates costly additional protection circuitry as well as overly conservative heat sinks typical of discrete high current voltage regulator designs. The 4 lead hermetic TO-204MA package, (formerly called TO-3) provides up to 50 watts of internal power dissipation.

FEATURES

- Output Voltage adjustable from -24 to -2.11 volts
- -5.0 A output current
- Internal Current and Thermal Overload Protection
- Low Dropout Voltage (typically 2.2V @ 5.0A)
- 50 W Power Dissipation
- Metal 4 lead TO-204MA type package
- Case electrically isolated (floating)

Connection Diagram
TO-204 Type Package (Top View)



PRODUCT FAMILY

PART NUMBER	OUTPUT VOLTAGE	DESCRIPTION
79HGSC	-24 to -2.11 V	Commercial Temp
79HGSM	-24 to -2.11 V	Military Temp
79HGSP	-24 to -2.11 V	Military Process

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TYPICAL ELECTRICAL CHARACTERISTICS

TJ=25° C , Vin=−10V, Iout=−2.0A unless otherwise specified

Line Regulation	0.2% x Vout	Vin=Vout−3V to Vin=Vout−16V
Load Regulation	0.5% x Vout	−.01 to −5.0 amps
Short Circuit Current Limit	−8.0Apeak	
Thermal Resistance Junction to Case	1.8° C/W	

ABSOLUTE MAXIMUM RATINGS

Input Voltage	−40V
Input to Output Differential, Output Short Circuited	−35V
Internal Power Dissipation	50W @ 25° C case
Operating Junction Temperature:	
79HGSC (commercial)	0° C to 150° C
79HGSM (mil temp)	−55° C to 150° C
79HGSP (mil process)	−55° C to 150° C
Storage Temperature Range	−55° C to 150° C
Pin Temp (soldering 60 sec)	300° C

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