National Semiconductor

Semiconductors

Linear I.C.'s - Consumer Circuits

LM270 Series AGC/Squelch Amplifier

REFERENCE TABLE

Stock No.
19659B
19667B
19753F

GENERAL DESCRIPTION

The LM270/370 is a direct coupled monolithic amplifier whose voltage gain is controlled by an external DC voltage.

FEATURES

Large gain control range.

Self-contained AGC/Squelch system, with fast-attack, slow-release.

Low distortion.

Minimum DC output shifts as gain is varied.

Differential inputs, with large common-mode input range.

Outputs of several amplifiers may be directly summed in multichannel systems.

Dissipates only 18mW from $\pm 4.5 V$ supply, usable with supply up to $\pm 24 V$.

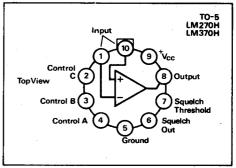
Sensitive squelch threshold set by single external resistor.

In addition to communication system squelch and AGC applications, the LM270/370 is useful as constant-amplitude audio oscillator, linear low frequency modulator, single-sideband automatic load control, and as a variable DC gain element in analog computation.

ABSOLUTE MAXIMUM RATINGS

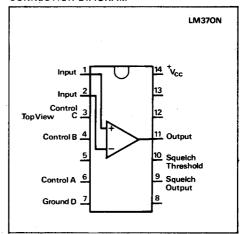
Supply voltage	24V
Storage temperature	-65°C to +150°C
Operating temperature LM270 LM370	−25°C to +75°C 0°C to +70°C
Differential input voltage	±19.5V

CONNECTION DIAGRAM



See outline drawing No. 98 for dimensions.

CONNECTION DIAGRAM



See outline drawing No. 109 for dimensions.

Common-mode input voltage	(V _{CC} +0.4)V
Output short circuit duration	Indefinite
Voltage applied to Pin 3 or 4	+6.0V
Voltage applied to Pin 2	+12.0V
Surge power into Pin 6 (1 second maximum)	1000mW
Continuous power into Pin 6	100mW