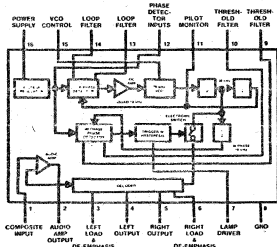


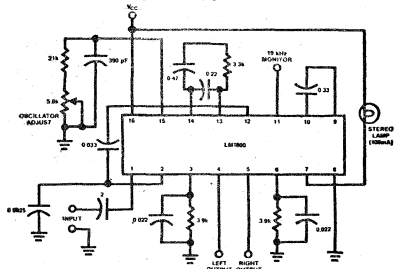
LM1800 PLL FM stereo demodulator IC
pin assignment



absolute maximum ratings
Supply Voltage: 18V
Power Dissipation: 715mW
Operating Temperature: 0° to +70°C

electrical characteristics
Stereo Channel Separation: 45dB (typ.)
Distortion: 0.4% (typ.)
SCA Rejection: 70dB
Lamp Current: 100mA (max.)

typical application



For Further Information
See Radio Shack Data Books

276-059 TYPE 508?

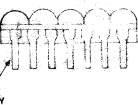
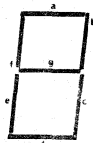
This device is a 5 digit, 7-segment, right hand decimal point display. Uses ultra-low power; magnification provides excellent readability and it is constructed for strobed operation.

Maximum Ratings:
Peak Forward Current/segment 110mA
Average Current/segment 5mA
Power Dissipation/digit 80mW

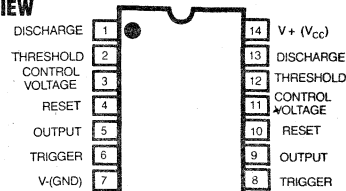
Electrical Characteristics:
Peak Forward Voltage per segment* 1.7V(typ)
Peak Luminous Intensity per segment* 2.6mcd(typ)
Reverse Current/segments 100µA(max)

*@Peak Current of 80mA per segment.

PIN NO	FUNCTION		
1	CATHODE 1	8	ANODE g
2	ANODE e	9	CATHODE 4
3	ANODE c	10	ANODE f
4	CATHODE 3	11	N/C(1)
5	ANODE dp	12	ANODE b
6	ANODE d	13	CATHODE 2
7	CATHODE 5	14	ANODE a



TOP VIEW



TRUTH TABLE

THRESHOLD VOLTAGE	TRIGGER VOLTAGE	RESET	OUTPUT	DISCHARGE SWITCH
DON'T CARE	DON'T CARE	LOW	HIGH	ON
$> 2/3(V^+ - V^-)$	$> 2/3(V^+ - V^-)$	HIGH	LOW	ON
$1/3 < V_{TH} < 2/3$	$1/3 < V_{TH} < 2/3$	HIGH	HIGH	?
$< 1/3(V^+ - V^-)$	$< 1/3(V^+ - V^-)$	HIGH	HIGH	OFF

features

- High-performance replacement for 556
- Extremely low power consumption
- High output source/sink for TTL/CMOS
- Decoupling capacitors normally not needed
- 100% static protected—no special handling

absolute maximum ratings

Supply Voltage ($V^+ - V^-$): +18V
Input Voltage: $\leq V^+ + 0.3V$ to $\geq V^- - 0.3V$
(Trigger, Threshold, Reset, Control Voltage)
Oscillating Frequency: 500 kHz
Output Current: 100 mA
Operating Temperature: -20° to +70°C

electrical characteristics (25°C)

V^+ : 2-18V
Supply Current: 180 uA (typ.)
Temperature Stability: 0.005%/°C at 25°C

For Further Information, See Radio Shack Semiconductor Reference Guide

Silicon N-Channel FET

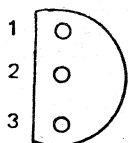
BV_{gss} 25V
 P_D 360mW
 $V_{gs}(OFF)$ -3.5V
Noise Figure 2.5dB

Typicals @ $V_{ds}=15V$

G_{fs} 5.0mmhos
 f_{dss} 10mA

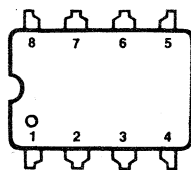
Applications: Low noise, high frequency RF amplifier, mixer, and switch.

- 1 - DRAIN
- 2 - GATE
- 3 - SOURCE



Case Style
To-92

MC1350 monolithic IF amplifier



1. IF Output (-)
2. V^+
3. Ground
4. IF Input (-)
5. AGC Input
6. IF Input (+)
7. Ground
8. IF Output (+)

The MC1350 IF amplifier covers a wide range of frequencies, from DC to 58MHz with -48dB (min.) power gain. Includes a highly-effective AGC section. Perfect for experimental receivers or replacement use.

absolute maximum ratings (25°C)

Supply Voltage (V^+): +18V
Output Supply Voltage: +18V
AGC Supply Voltage: V^+
Differential Input Voltage: 5.0V
Power Dissipation: 625mW

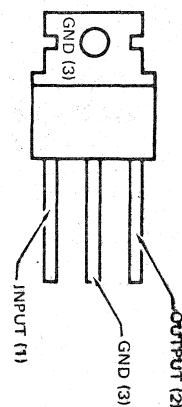
electrical characteristics (25°C)

Supply Current (Typ.): 14mA
Power Gain (decreases as design freq. increases): 46 to 62dB
Differential Voltage
Swing. (-30dB AGC): 8.0V(p-p)
Supply Voltage: +12V

For Further Information
See Radio Shack Data Books

7805 5V regulator IC

FRONT TO-220 (T)



features

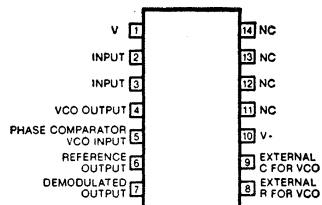
- Internal thermal overload protection
- Stable fixed output voltage
- Up to 1.0 amp output current
- Output transistor safe area protection
- Internal short-circuit current limit

absolute maximum ratings

Input voltage: 35V
Operating temperature: 0°C to +70°C
Max. junction temperature: 150°C

FOR FURTHER INFORMATION SEE
RADIO SHACK DATA BOOKS

Cat. No.
276-1720



pin connections

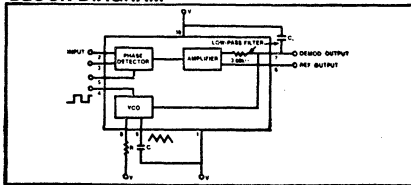
applications

- frequency shift keying
- modems
- tone decoders
- SCA receivers
- FM discriminators
- frequency multiplication and division

absolute maximum ratings

V₊: 26V
 Input Voltage: 3V p-p
 Power Dissipation: 300 mW
 Center Frequency: 500 kHz
 Output Voltage: 5.0V
 Free-Running
 Frequency of VCO: $f_0 \approx \frac{1.2}{4R_1 C_1}$ in Hz

BLOCK DIAGRAM



For Further Information
See Radio Shack Data Books

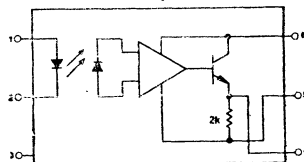
Cat. No.
276-135

MOC5010 linear op amp output optocoupler

description

The MOC5010 consists of a gallium-arsenide IR-emitting diode, optically coupled to a bipolar monolithic amplifier. It converts an input current variation to an output voltage variation.

pin assignment



1. Anode
2. Cathode
3. No Connection
4. Output
5. Ground
6. VCC (+)

absolute maximum ratings (25°C)

Operating Temperature: +85°C

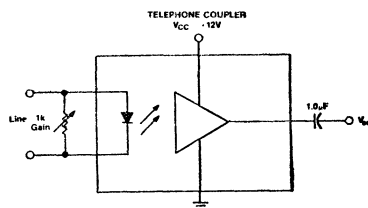
Diode

Reverse Voltage: 3.0V
 Forward Current: 50mA

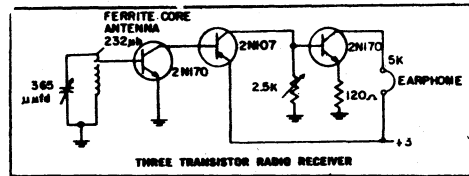
Op Amp

Supply Voltage (V_{CC}): 15V
 Supply Current (V_{CC} = 12V): 13mA
 Power Dissipation: 200mW

typical application

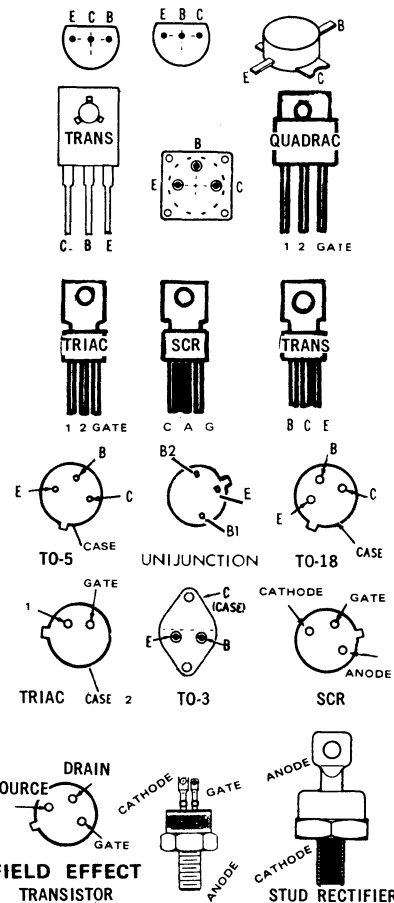


For Further Information
See Radio Shack Data Books



THREE TRANSISTOR RADIO RECEIVER

BASE DIAGRAMS



CODE: 1 AND 2 ARE MAIN TERMINALS