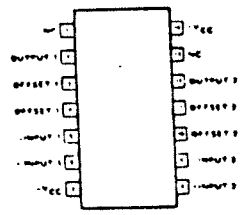
DUAL OPERATIONAL AMPLIFIER

MC1458/MC1558

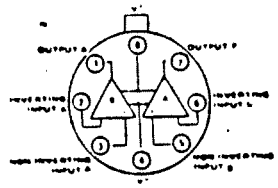
MC1458-A,F,T,V • MC1558-A,F,T,V

PIN CONFIGURATION

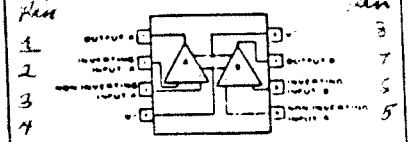
A, F PACKAGE



T PACKAGE



V PACKAGE



FEATURES

- 2 "OP AMPS" IN SPACE OF ONE 741 V PACKAGE
- NO FREQUENCY COMPENSATION REQUIRED
- SHORT CIRCUIT PROTECTION
- LOW POWER CONSUMPTION
- LARGE COMMON MODE AND DIFFERENTIAL VOLTAGE RANGES
- NO LATCH-UP

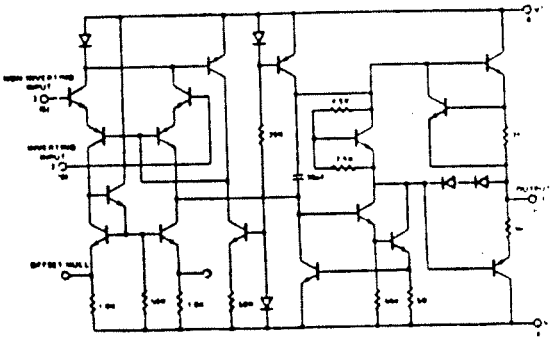
ABSOLUTE MAXIMUM RATINGS

Power Supply Voltages	MC1558	±22V
	MC1458	±18V
Differential Input Voltage		±30V
Common Mode Input Swing		±15V
Output Short Circuit Duration		Continuous
Power Dissipation (Note 1)		
T Package—(MO-002-AG)		680mW
V Package		625mW
Operating Temperature Range		
MC1558		−55°C to +125°C
MC1458		0°C to +75°C
Storage Temperature Range		−65°C to +150°C
Lead Temperature (Soldering, 60 sec.)		300°C

NOTES:

1. Derate T package linearly at 4.6mW/°C for ambient temperatures above +25°C.
2. Derate V package at 5mW/°C above 25°C.

EQUIVALENT CIRCUITS



The numbers without parenthesis represent the pin numbers for ½ of the dual circuit. The numbers in parenthesis represent the pin numbers for the other half.

ELECTRICAL CHARACTERISTICS

Parameter	Test Conditions	LIMITS Typ	Units
Parallel Input Capacitance		6.0	pF
Common Mode Input Impedance	f=20Hz	200	MegΩ
Equivalent Input Noise Voltage	A_V=100, R_S=10KΩ, f=1.0kHz, BW=1.0Hz	45	$nV/\sqrt{Hz}$
Power Bandwidth	A_V=1, R_L=2.0KΩ, THD<5%, V_{OUT}=20Vp-p	14	kHz
Phase Margin		65	degrees
Gain Margin		11	dB
Slew Rate		0.8	V/μs
Output Impedance	f=20Hz	300	ohms
Channel Separation		120	dB