

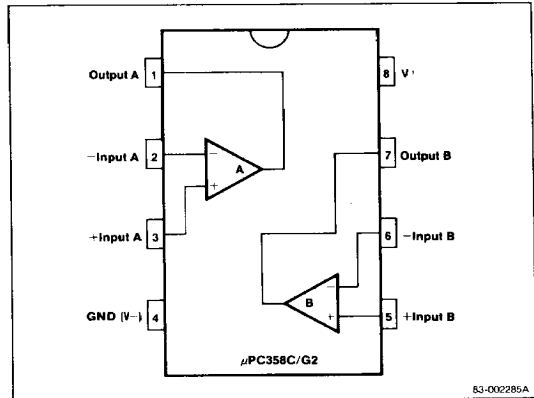
Description

The μ PC358 is designed to operate from a single power supply, with the option to operate from split power supplies. This amplifier offers the circuit designer low power supply current drain, input common mode voltage, and large output voltage swing both of which include ground.

Features

- ☐ Internal frequency compensation
- ☐ Large output voltage swing:
0 V to ($V+ - 1.5$ V)
- ☐ Input common-mode voltage range includes ground
- ☐ Wide power supply range:
single supply 3 V to 30 V DC
- ☐ Dual supplies: ± 1.5 V to ± 15 V DC
- ☐ LM358 direct replacement

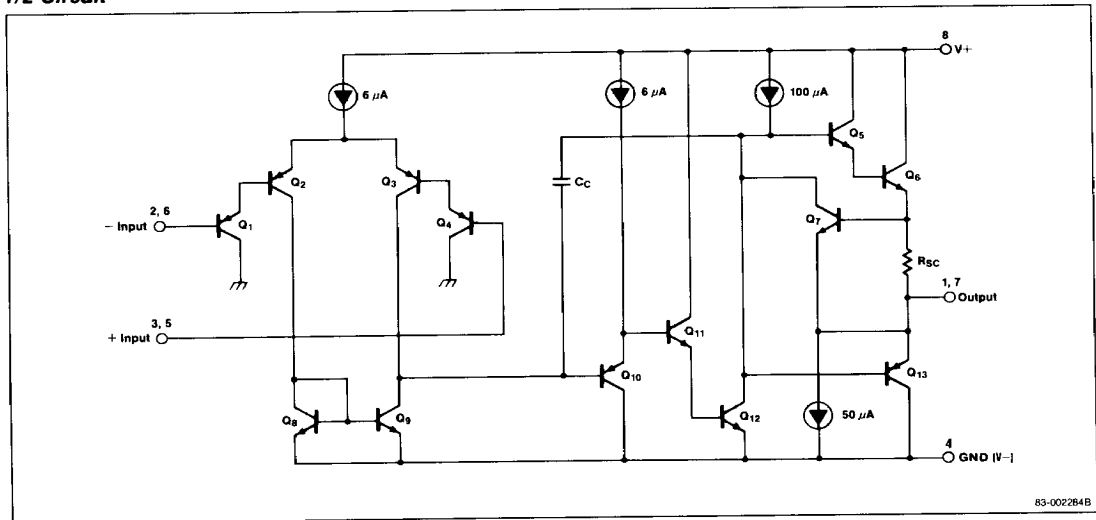
Pin Configuration



3

Equivalent Circuit

1/2 Circuit



Ordering Information

Part Number	Package	Operating Temperature Range
μPC358C	Plastic DIP	0°C to +70°C
μPC358G2	Plastic Miniflat	0°C to +70°C

Absolute Maximum Ratings

T_A = 25°C

Voltage Between V ⁺ and V ⁻	32 V
Differential Input Voltage	32 V
Input Voltage	-0.3 to +32 V
Power Dissipation, C Package	350 mW
Power Dissipation, G2 Package	440 mW
Output Short Circuit Duration	Indefinite
Operating Temperature Range	0 to +70°C
Storage Temperature Range	-55 to +125°C

Comment: Stress above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

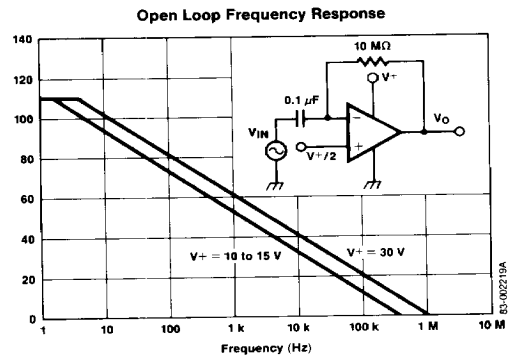
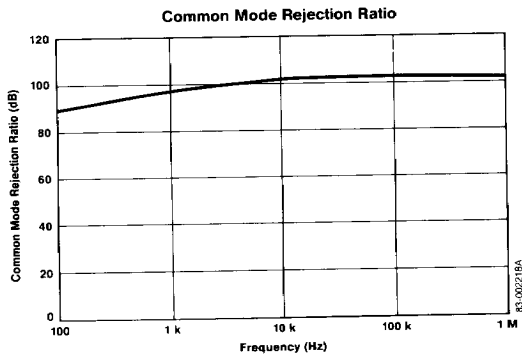
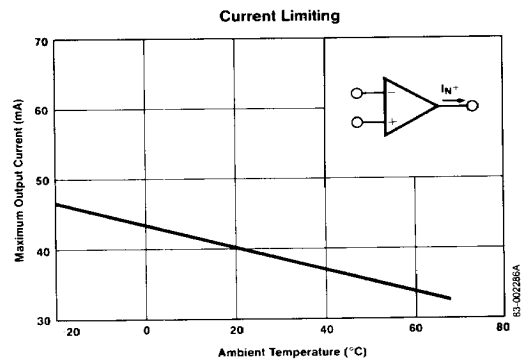
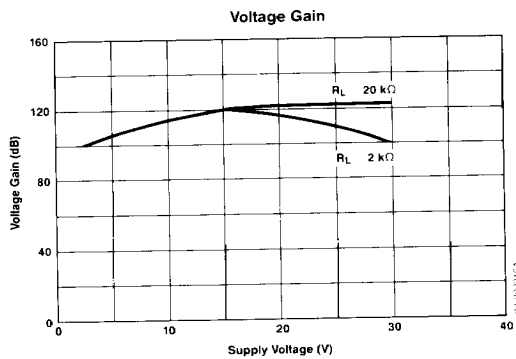
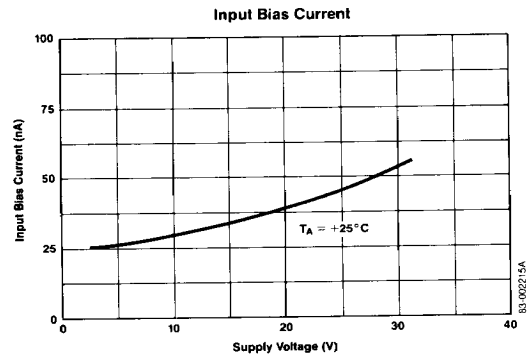
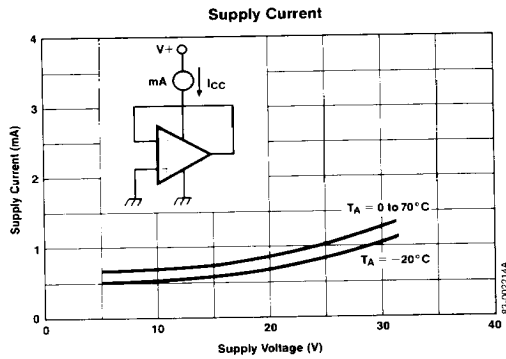
Electrical Characteristics

T_A = 25°C, V_± = ±15 V,

Parameter	Symbol	Limits			Unit	Test Conditions
		Min.	Typ.	Max.		
Input Offset Voltage	V _{io}		2	7	mV	R _S ≤ 0 Ω
Input Bias Current	I _b		45	250	nA	
Input Offset Current	I _{io}		5	50	nA	
Common Mode Input Voltage Range	V _{icm}	0		V ⁺ - 1.5	V	
Supply Current	I _{CC}		0.7	1.2	mA	R _L = ∞
Voltage Gain	A _{VOL}	88	100		dB	R _L ≥ 2 kΩ
Output Voltage Swing	V _{OM}	0		V ⁺ - 1.5	V	R _L ≥ 2 kΩ
Common Mode Rejection Ratio	CMRR	65	70		dB	
Supply Voltage Rejection Ratio	SVRR	65	100		dB	
Channel Separation	CS		120		dB	f = 1 kHz to 20 kHz
Output Current (Source)	I _O SOURCE	20	40		mA	+Input = 1 V -Input = 0 V
Output Current (Sink)	I _O SINK	10	20		mA	+Input = 1 V -Input = 0 V
		12	50		μA	+Input = 1 V -Input = 0 V V _O = 200 mV

Operating Characteristics

$T_A = 25^\circ\text{C}$



Operating Characteristics (Cont.)

$T_A = 25^\circ\text{C}$

