

Uncompensated Operational Amplifiers

SG748/748C

The SG748/748C are high performance devices which are similar to the 741/741C but without internal compensation. The 748/748C are functional and pin for pin replacements for the 301A and 201 type operational amplifiers.

- Complete short circuit protection
- Offset voltage null capability
- High common mode voltage range
- High differential input voltage range
- Available in minidip

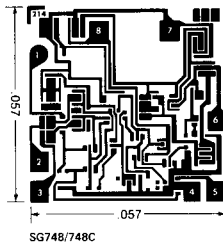
SG777/777C

The SG777/777C are precision operational amplifiers featuring low input offset current and low bias current. This device is available in most popular package styles, including minidip.

- Low input bias current – 25nA
- Low input offset current – 3nA
- Low input offset voltage – 2mV
- Low offset voltage and current drift
- Short circuit protection

PARAMETERS*	748	748C	777	777C	UNITS
Supply Voltage	±15	±15	±15	±15	V
Operating Temperature Range	-55 to +125	0 to +70	-55 to +125	0 to +70	°C
Package Types	T, J, F, Y	T, J, F, Y, N, M	T, J, F, Y	T, Y, J, F, N, M	—
Input Offset Voltage	5.0 (6.0)	6.0 (7.5)	2.0 (3.0)	(5.0)	mV
Input Offset Current	200 (500)	200 (300)	3.0 (10.0)	20 (40)	nA
Input Bias Current	500 (1500)	500 (800)	25 (75)	100 (200)	nA
Temp Coeff Input Offset Voltage	(3.0 typ)	(6.0 typ)	15	30	μV/°C
Temp Coeff Input Offset Current	(0.5 typ)	(0.5 typ)	0.15	0.6	nA/°C
Large Signal Voltage Gain	50 (25)	25 (15)	50 (25)	25 (15)	V/mV
Common Mode Rejection	(70)	70	(80)	(70)	dB
Power Supply Rejection	(150)	150	(100)	(150)	μV/V
Input Common Mode Voltage Range	±12	±12	(±12)	(±12)	V
Differential Input Voltage	±30	±30	±30	±30	V
Slew Rate	$A_V = 1$,	0.3	0.3	0.5 (typ)	V/μS
	$A_V = 10$	3 (typ)	3 (typ)	5.5 (typ)	
Unity Gain Bandwidth (typ)	0.8	0.8	0.5	0.5	MHz
Supply Current	2.8	2.8	2.8	2.8	mA
V_{out}	$R_L = 2k\Omega$	(±10)	±10	(±10)	V
	$R_L = 10k\Omega$	(±12)	—	(±12)	
Noise	$R_S = 1k\Omega$ $f = 10\text{Hz to }10\text{kHz}$	4	4	4	μV (rms)
	$R_S = 500k\Omega$ $f = 10\text{Hz to }10\text{kHz}$	25	25	25	

*Parameters apply over supply voltage range and are min./max. limits either at $T_A = 25^\circ\text{C}$ (or over operating temperature range if enclosed in parentheses), unless otherwise indicated.



CONNECTION DIAGRAMS

