

FEATURES

- Wide range of supply voltages
- Low supply current drain independent of supply voltage
- Low input biasing current
- Low input offset voltage and offset current
- Input common-mode voltage range includes ground
- Differential input voltage range equal to the power supply voltage
- DC voltage gain 100V/mV Typ
- Internally frequency compensation

SOP-14 Pin Configuration



SOP-14

ORDERING INFORMATION

Device	Package
TJ324GD	SOP-14

DESCRIPTION

The TJ324 consists of four independent, high gain, internally frequency compensated operational amplifiers which were designed specifically to operate from a single power supply over a wide range of voltages. Operation from split power supplies is also possible and the low power supply current drain is independent of the magnitude of the power supply voltage.

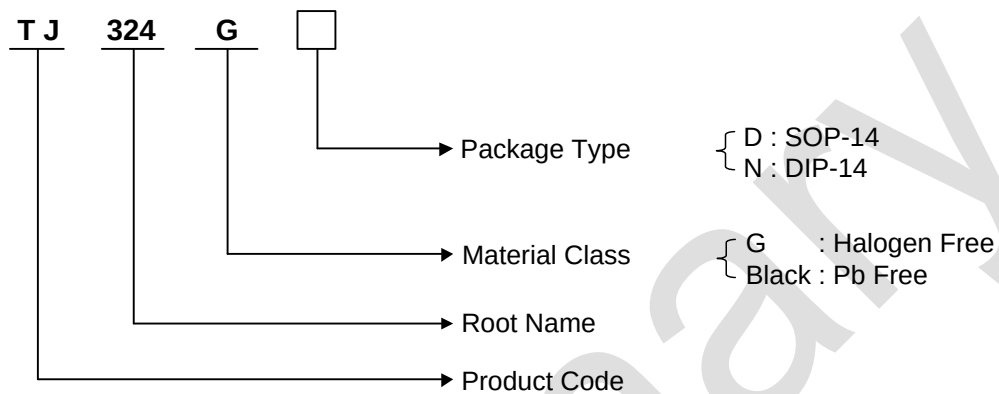
Application areas include transducer amplifiers, DC gain blocks and all the conventional op amp circuits.

ABSOLUTE MAXIMUM RATING

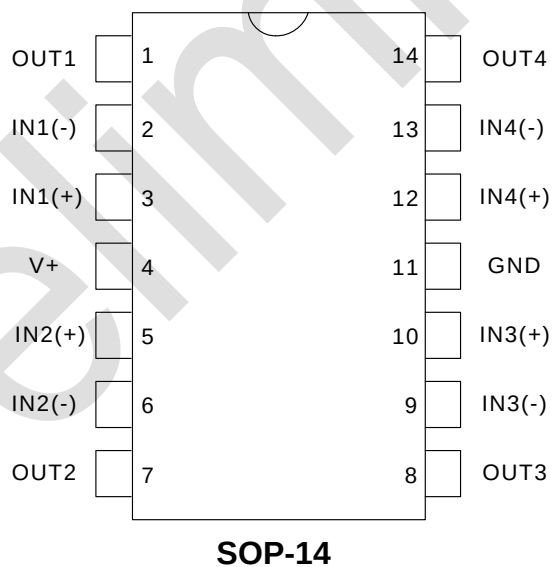
CHARACTERISTIC	SYMBOL	Value	UNIT
Supply Voltage	V_{CC}	40	V
Input Voltage	V_{IN}	-0.3 to +40	V
Operating Temperature Range	T_{OPR}	-40 to +125	°C

Ordering Information

Package	Order No.	Packing Marking	Supplied As	Status
SOP-14	TJ324GD	TJ324G	Reel	Active



PIN CONFIGURATION

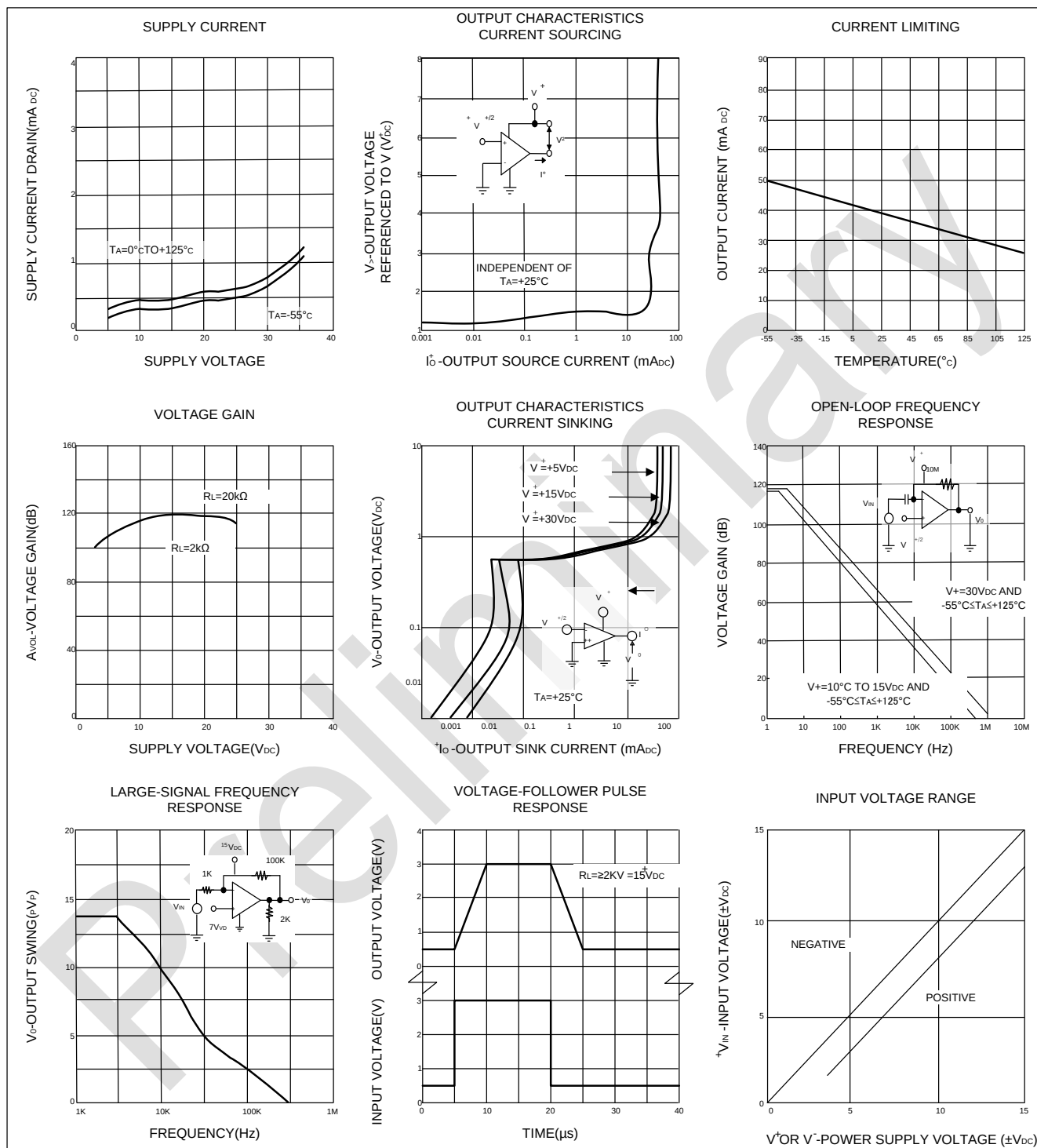


ELECTRICAL CHARACTERISTICS

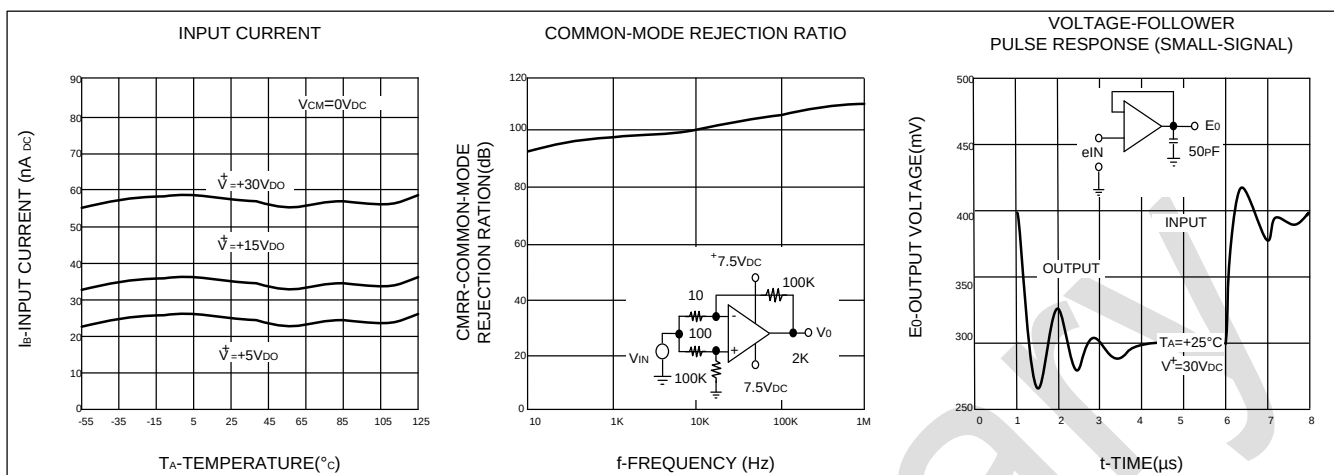
At specified free-air temperature, $V_{CC}=5V$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS*		MIN	TYP	MAX	UNIT
V _{IO} Input offset voltage	V _{CC} =5V to MAX, V _{IC} =V _{ICR} min, V _O =1.4V	25 °C		3	7	mV
		Full range			9	
αV _{IO} Average temperature coefficient of input offset voltage		Full range		7		μV/°C
I _{IO} Input offset current	V _O =1.4V	25 °C		2	50	nA
		Full range			150	
αI _{IO} Average temperature coefficient of input offset current		Full range		10		pA/°C
I _{IB} Input bias current	V _O =1.4V	25 °C		-20	-250	nA
		Full range			-500	
V _{ICR} Common-mode input voltage range	V _{CC} =5V to MAX	25 °C	0 to V _{CC} -1.5			V
		Full range	0 to V _{CC} -2			
V _{OH} High-level output voltage	R _L =2kΩ	25 °C	V _{CC} -1.5			V
	V _{CC} =MAX, R _L =2kΩ	Full range	26			
	V _{CC} =MAX, R _L =10kΩ	Full range	27	28		
V _{OL} Low-level output voltage	R _L ≥10kΩ	Full range		5	20	mV
A _{VD} Large-signal differential voltage amplification	V _{CC} =15V V _O =1V to 11V R _L ≥2kΩ	25 °C	25	100		V/mV
		Full range	15			
CMRR Common-mode rejection ratio	V _{CC} = 5 V to MAX, V _{IC} = V _{ICR} min	25 °C	65	80		dB
k _{SVR} Supply voltage rejection ratio (ΔV _{CC} /ΔV _{IO})	V _{CC} = 5 V to MAX	25 °C	65	100		dB
V _{O1} /V _{O2} Crosstalk attenuation	f=1 kHz to 20 kHz	25 °C		120		dB
I _O Output current	V _{CC} =15V, V _{ID} =1V, V _O =0V	25 °C	-20	-30		mA
		Full range	-10			
	V _{CC} =15V, V _{ID} =-1V, V _O =15V	25 °C	10	20		
		Full range	5			
	V _{ID} = -1 V, V _O = 200mV	25 °C	12	30		μA
I _{OS} Short-circuit output current	V _{CC} at 5 V, GND at -5V,V _O =0	25 °C		±40	±60	mA
I _{CC} Supply current (two amplifiers)	V _O -2.5V, No load	Full range		1.5	2.4	mA
	V _{CC} = MAX, V _O = 0.5V _{CC} . No load	Full range		1.1	3	

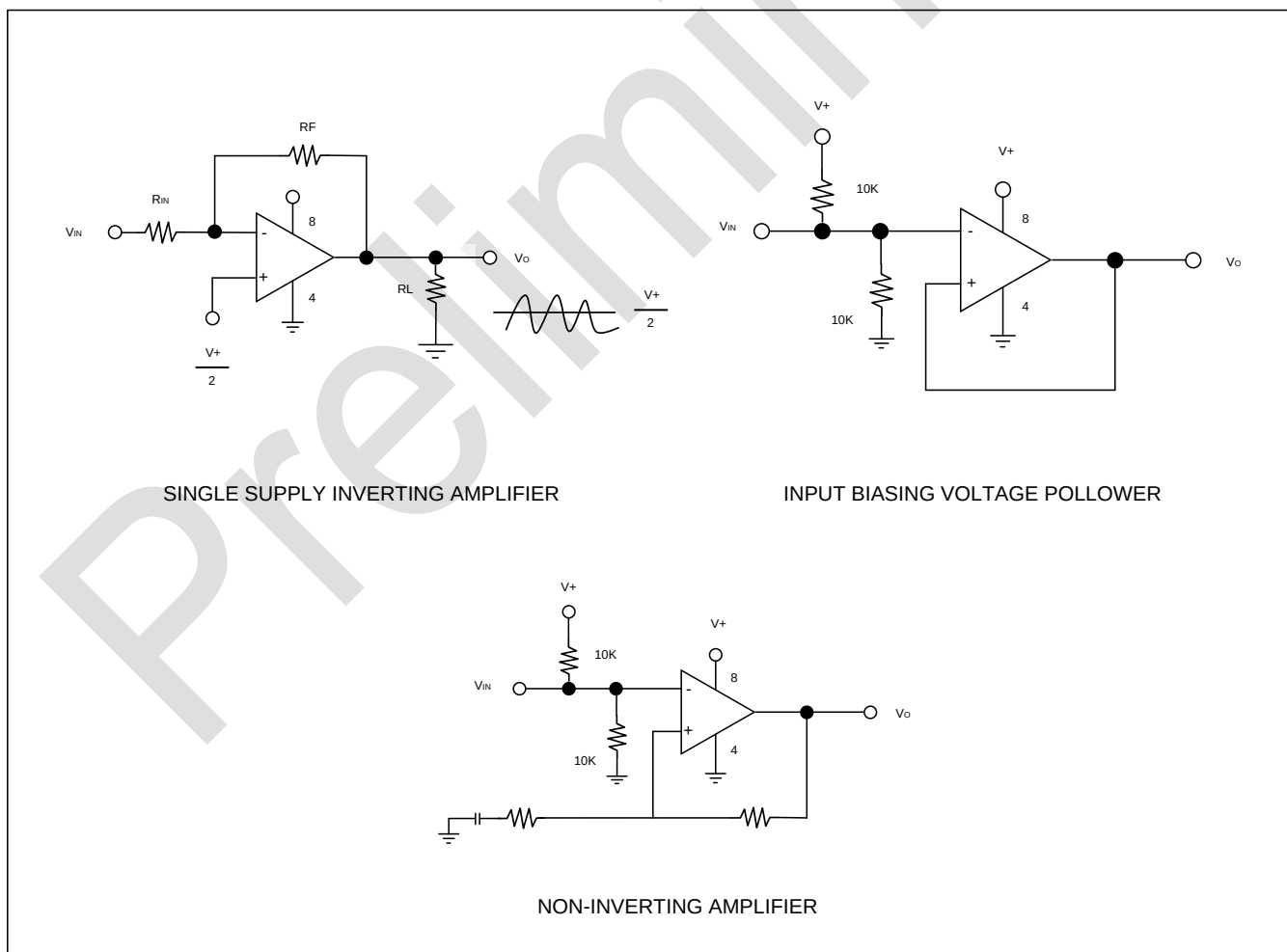
TYPICAL PERFORMANCE CHARACTERISTICS



TYPICAL PERFORMANCE CHARACTERISTICS (CONTINUED)



TYPICAL APPLICATIONS



REVISION NOTICE

The description in this datasheet can be revised without any notice to describe its electrical characteristics properly.

Preliminary