

DUAL OPERATIONAL AMPLIFIER

DESCRIPTION

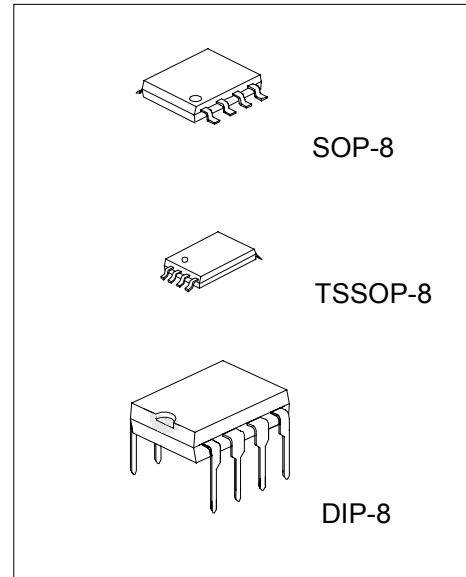
The UTC M4565 integrated circuit is a high-gain, wide-bandwidth, dual low noise operational amplifier capable of driving 20V peak-to-peak into 400 Ω load.

FEATURES

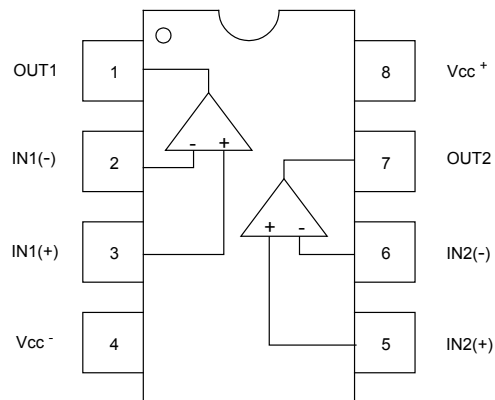
*Operating Voltage: $\pm 4V \sim \pm 18V$

*Wide Gain Bandwidth Product: 4MHz (typ.)

*Slew Rate: 4V/ μ s (typ.)

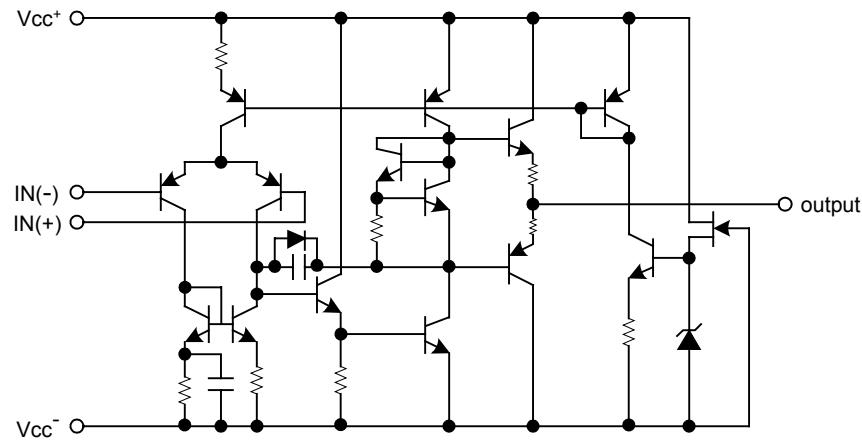


PIN CONFIGURATION



UTC M4565 LINEAR INTEGRATED CIRCUIT

EQUIVALENT CIRCUIT



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V ⁺ /V ⁻	± 18	V
Differential Input Voltage	V _{ID}	± 30	V
Input Voltage	V _{IC}	± 15 *	V
Power Dissipation	P _D	500 300 250	mW
DIP-8			
SOP-8			
TSSOP-8			
Operating Temperature Range	T _{opr}	-20~+75	°C
Storage Temperature Range	T _{stg}	-40~+125	°C

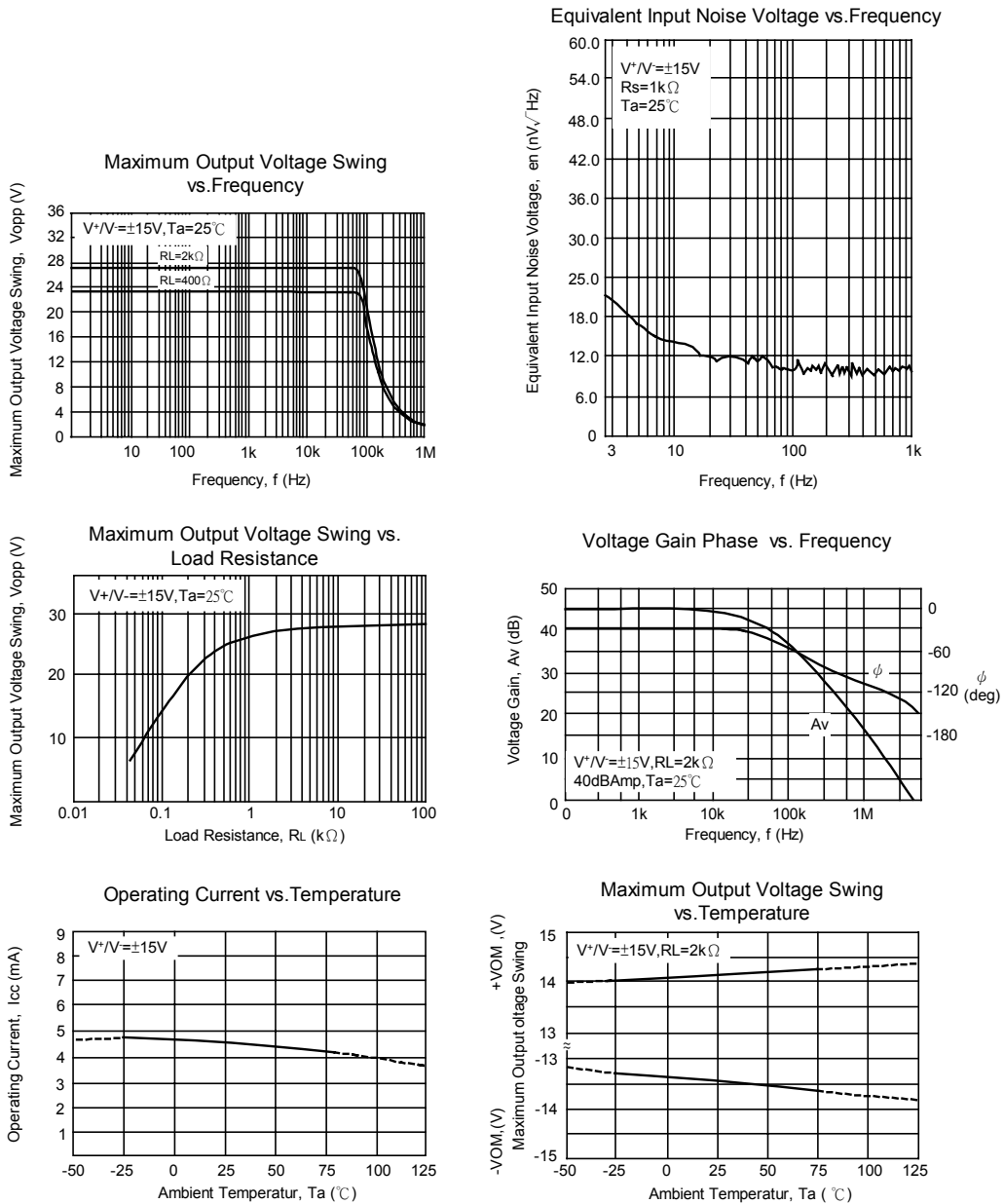
* For supply voltage less than ± 15V, the absolute maximum input voltage is equal to the supply voltage.

ELECTRICAL CHARACTERISTICS (Ta=25°C, V⁺/V⁻=± 15V)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Input Offset Voltage	V _{IO}	R _s ≤ 10k Ω		0.5	3.0	mV
Input Offset Current	I _{IO}			2	50	nA
Input Bias Current	I _B			50	200	nA
Input Resistance	R _{IN}		0.3	5		M Ω
Large Signal Voltage Gain	A _v	R _L ≥ 2k Ω, V _o = ± 10V	86	100		dB
Maximum Output Voltage Swing 1	V _{OM1}	R _L ≥ 2k Ω	± 12	± 14		V
Maximum Output Voltage Swing 2	V _{OM2}	I _o = 25mA	± 10	± 11.5		V
Input Common Mode Voltage Range	V _{ICM}		± 12	± 14		V
Common Mode Rejection Ratio	CMR	R _s ≤ 10k Ω	70	90		dB
Supply Voltage Rejection Ratio	SVR	R _s ≤ 10k Ω	76.5	90		dB
Operating Current	I _{CC}			4.5	7	mA
Slew Rate	SR			4		V/μs
Gain Bandwidth Product	GB			10		MHz
Equivalent Input Noise Voltage	V _{NI}	RIAA, R _s = 2.2k Ω, 30kHz LPF		1.2		μVrms

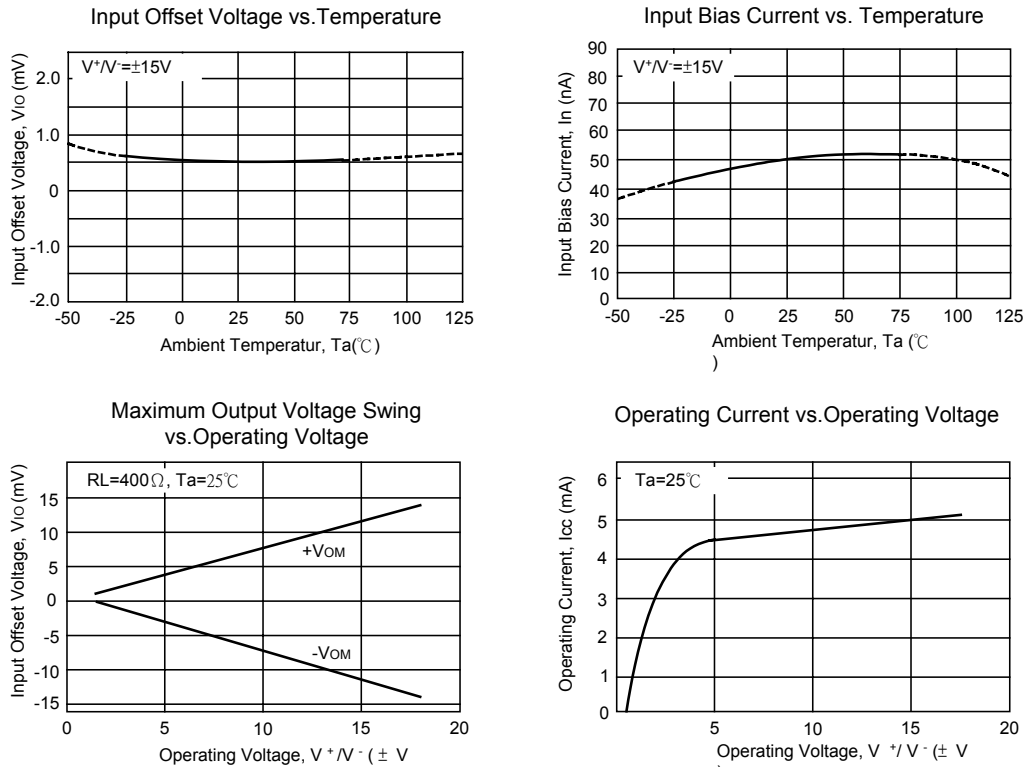
UTC M4565 LINEAR INTEGRATED CIRCUIT

TYPICAL CHARACTERISTICS



UTC M4565 LINEAR INTEGRATED CIRCUIT

TYPICAL CHARACTERISTICS



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