

UTCM2107 LINEAR INTEGRATED CIRCUIT

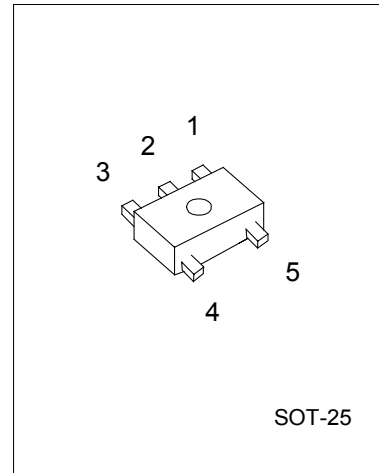
SINGLE OPERATIONAL AMPLIFIER

DESCRIPTION

The UTC M2107 is the single operational amplifier of ultra miniature surface mount package. It has features of low operating supply voltage and low saturation output voltage. It is suitable for small electronic equipments and hybrid circuits.

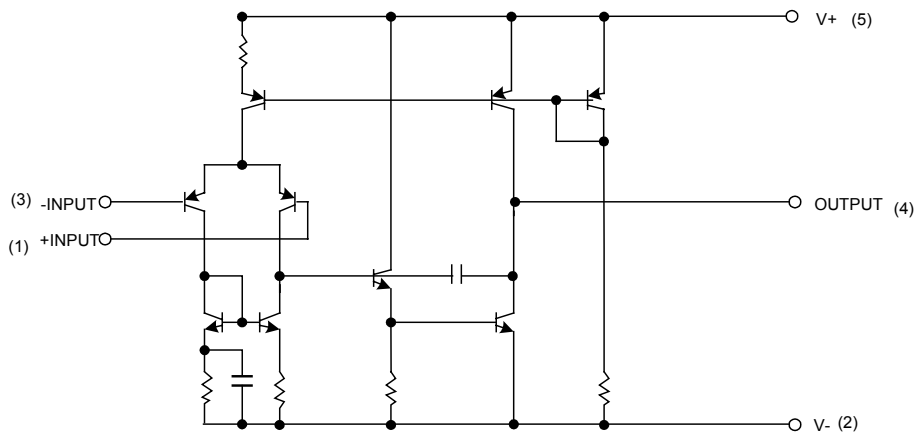
FEATURES

- *Operating Voltage ($V^+/V^- = \pm 1.0V$ to $\pm 3.5V$)
- *Low Output Saturation: (4Vp-p at single 5V supply)
- *V-Shield Plate Between +Input and -Input
- *Suitable Pin Arrangement for Application
- *Bipolar Technology



1: +INPUT 2: V- 3: -INPUT
4: OUTPUT 5: V+

EQUIVALENT CIRCUIT



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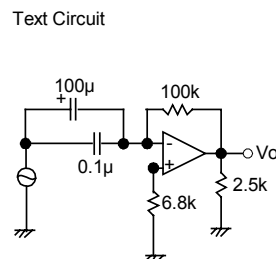
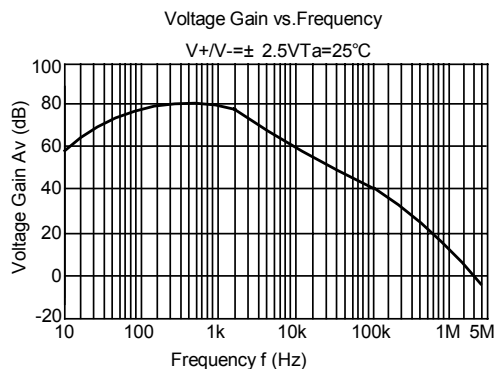
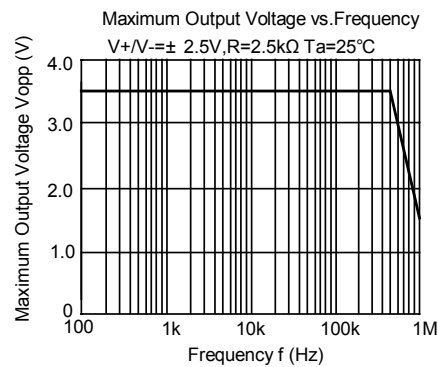
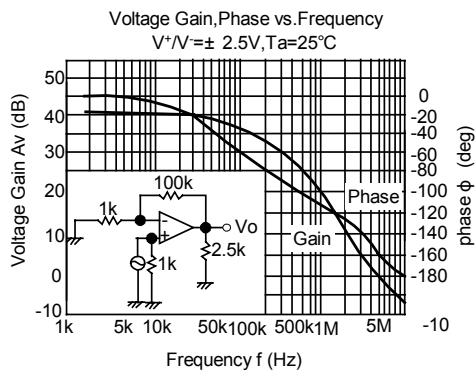
ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+ (V^+/V^-)	+7 (or ± 3.5)	V
Differential Input Voltage	V_{ID}	± 7	V
Input Voltage	V_{IC}	± 3.5	V
Power Dissipation	P_D	200	mW
Operating Temperature Range	T_{opr}	-40 to +85	°C
Storage Temperature Range	T_{stg}	-40 to +125	°C

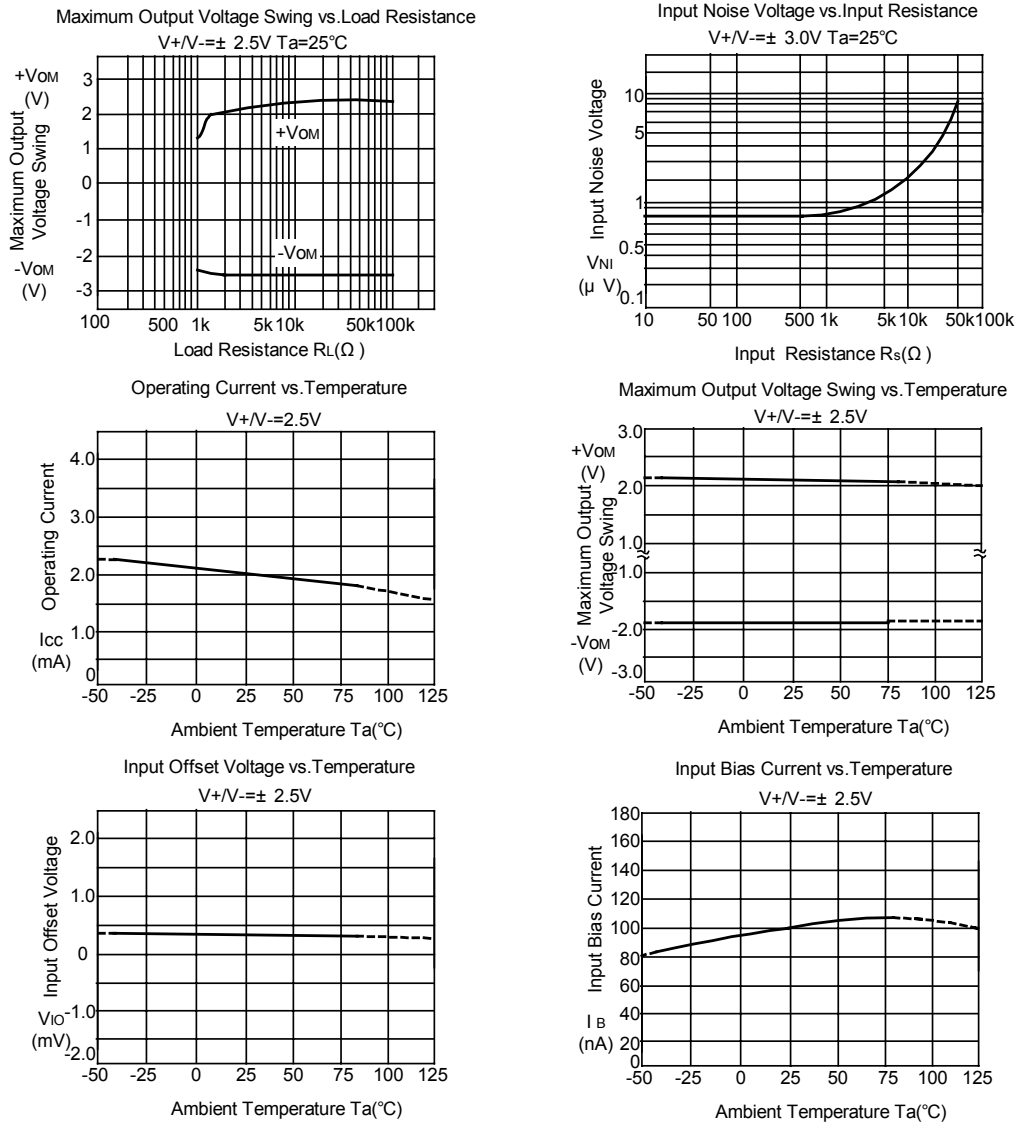
ELECTRICAL CHARACTERISTICS ($V^+/V^- = \pm 2.5V$, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Input Offset Voltage	V_{IO}	$R_S = 10k\Omega$	-	1	6	mV
Input Offset Current	I_{IO}	$I^+ - I^-$	-	5	200	nA
Input Bias Current	I_B		-	100	500	nA
Large Signal Voltage Gain	A_V	($V_O = \pm 2.0V, R_L = 10k\Omega$)	60	80	-	dB
Supply Voltage Rejection Ratio	SVR	$R_S \leq 10k\Omega$	60	70	-	dB
Input Common Mode Voltage Range	V_{ICM}		± 1.5	-	-	V
Common-mode Rejection Ratio	CMR	$R_S \leq 10k\Omega$	60	80	-	dB
Output Voltage Swing	V_{OM}	$R_L = 2.5k\Omega$	± 2.0	± 2.2	-	V
Slew Rate	SR	$V_{IN} = \pm 1Vp-p, A_{CL} = +1$	-	3	-	V/ μs
Operating Current	I_{CC}		1	2	3	mA

TYPICAL CHARACTERISTICS



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