

NEW

CMOS Operational Amplifier TK62012F

DESCRIPTION

The TK62012F is dual CMOS operational amplifier. It operated on a single supply 2.0V~5.5V, Rail-to-Rail input and output.

We achieved the class AB operational amplifier which operated by extremely low supply currents (22.5 μ A per amp) securing the gain bandwidth product of 1MHz.

The TK62012F is suitable for the battery powered application to a small portable equipment.

FEATURES

- Rail-to-Rail Input and Output : $V_{SS}+0.1V \sim V_{DD}-0.1V$
- Low Supply Current : 22.5 μ A (per amp)
- High Gain Bandwidth : 1 MHz
- High Output Short Circuit Current : 10 mA
(at $V_{DD}=3.0V$, $V_{SS}=0V$)
- Low Crossover Distortion
- Single Supply Operation : 2.0V ~ 5.5V

APPLICATIONS

- Battery Powered Small Portable Equipment
Cellular phone, Portable Audio System, DSC etc.

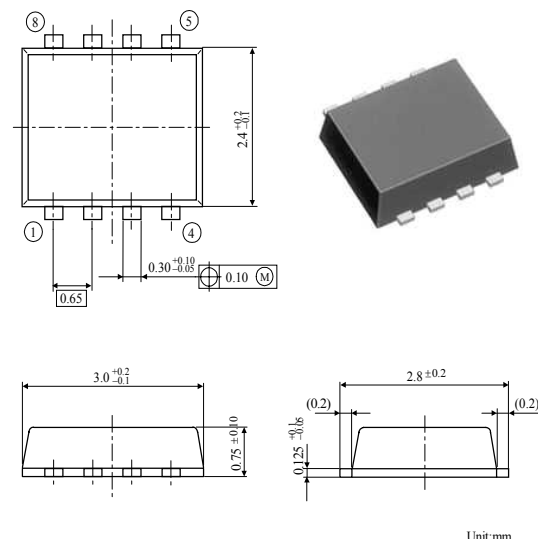
ELECTRICAL CHARACTERISTICS

Condition : $V_{DD}=3.0V$, $V_{SS}=0V$

Parameter	Symbol	Value (TYP)	Unit
Operating Voltage Range	V_{OP}	2.0 ~ 5.5	V
Supply Current	I_{SS}	45.0 μ	A
Maximum Output Voltage	High	V_{OH}	2.9 V
	Low	V_{OL}	0.1 V
Output Short Circuit Current	Sink	$I_{OS(-)}$	10 m A
	Source	$I_{OS(+)}$	10 m A
Open Loop Voltage Gain	A_{VO}	90	dB
Common Mode Rejection Ratio	CMRR	70	dB
Supply Voltage Rejection Ratio	SVRR	65	dB
Gain Bandwidth	GBW	1 M	Hz
Slew Rate	SR	0.4	V/ μ sec
Operating Temp. Range	T_{OP}	-40 ~ +85	$^{\circ}C$

PACKAGE OUTLINE

■ SON-8



BLOCK DIAGRAM

