



SANYO Semiconductors

DATA SHEET

EC4K11MF — CMOS IC

Amplifier IC for Condenser Microphone

Features

- High gain, high SNR, high input resistance, low voltage operation, low power consumption.
- Ultrasmall package permitting applied sets to be small and slim.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum Power Supply Voltage	V _{DD} max	R _L =2.2kΩ, Connection	4	V
Maximum Input Voltage	V _{IN} max		-0.5 to +0.5	V
Allowable Power Dissipation	P _D		100	mW
Storage Temperature	T _{stg}		-55 to +150	°C
Operating Temperature	T _{opr}		-20 to +70	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Power Supply Voltage	V _{DDopr}		2		3.6	V
Consumption Current	I _{DD}	V _{DD} =2.0V, V _{IN} =0V, R _L =2.2kΩ	140	170	200	μA
Input Capacitance	C _i	V _{DD} =2.0V, f=1MHz		2.7		pF
[Ta=25°C, V _{DD} =2.0V, R _L =2.2kΩ, C _i =3pF, See specified Test Circuit.]						
Voltage Gain	G _V	f=1kHz, V _{IN} =10mV	9.5	12	14	dB
Frequency Characteristics	ΔG _{Vf}	f=1kHz to 100Hz		0	-1	dB
Total Harmonic Distortion	THD	f=1kHz, V _{IN} =10mV		0.25		%
Output Noise Voltage	V _{NO}	V _{IN} =0V, A curve		-90	-84	dB

Marking : KD

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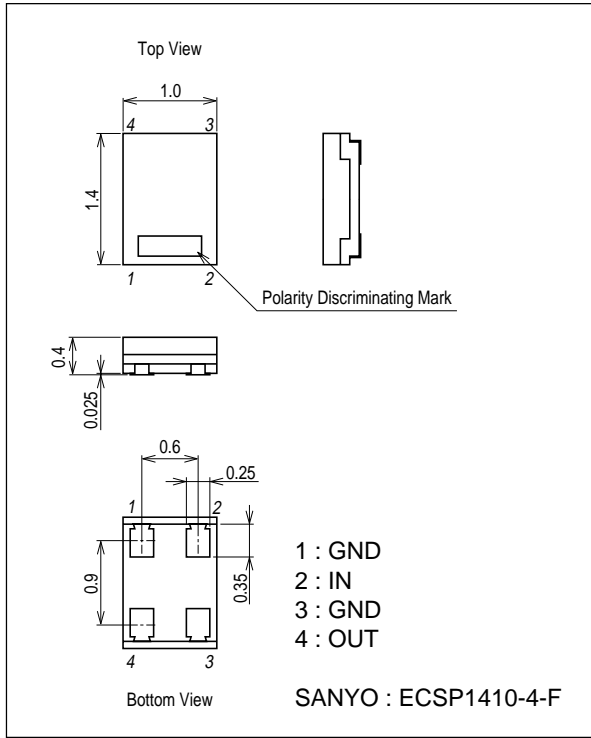
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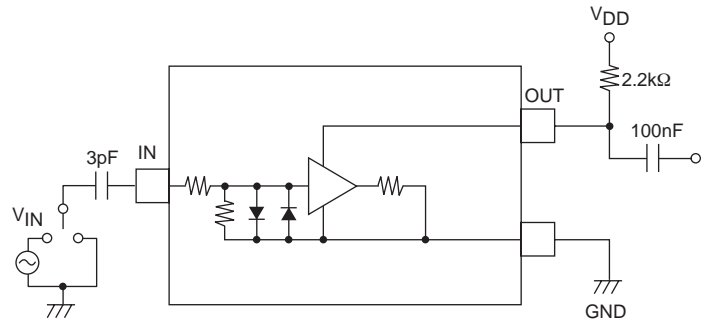
EC4K11MF

Package Dimensions

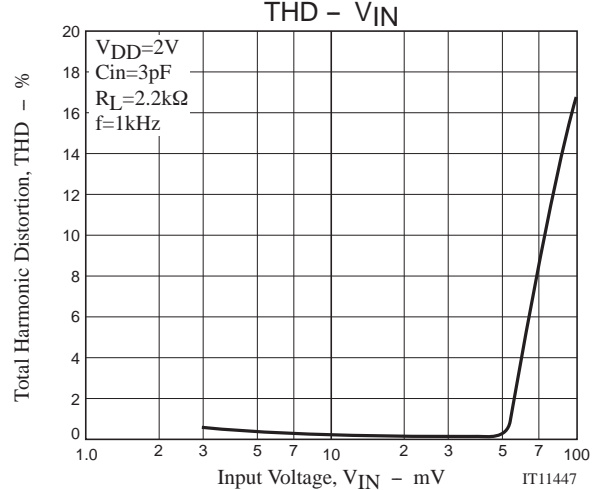
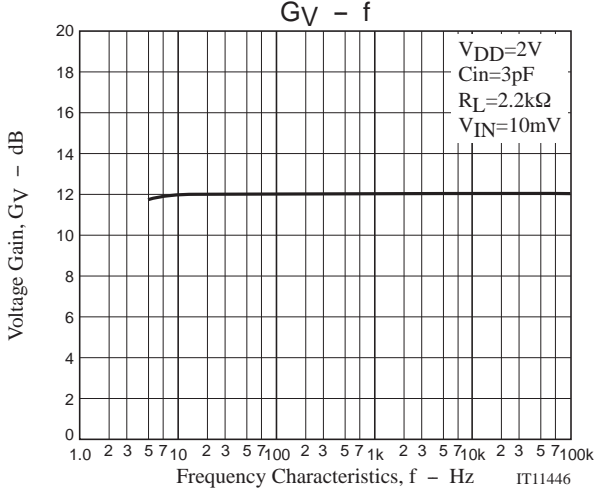
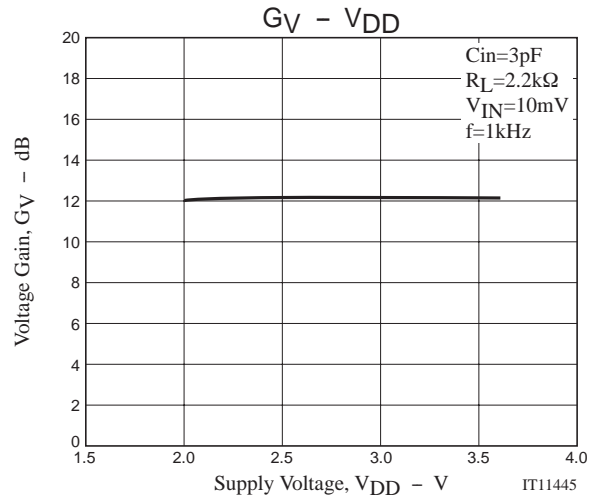
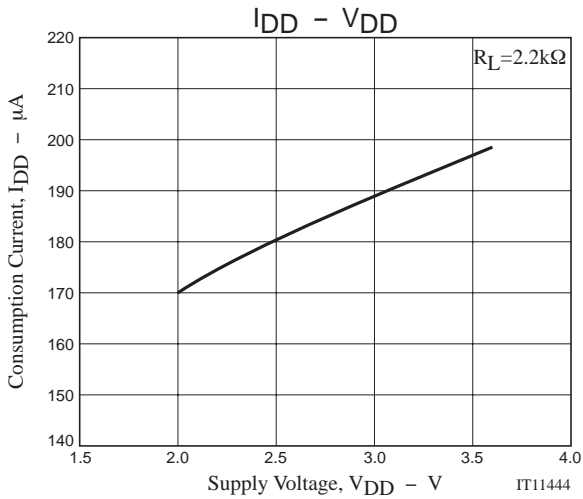
unit : mm (typ)
7046-001



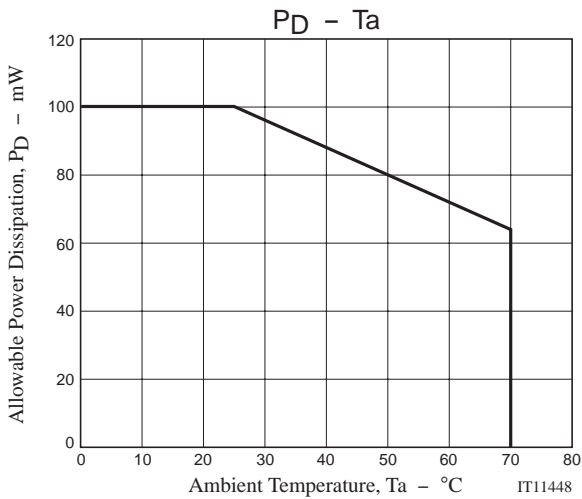
Test Circuit



IT11449



EC4K11MF



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