



TND731E4 — P-Channel Silicon MOSFET

Electret Condenser Microphone Applications

Features

- Ultrasmall package permitting applied sets to be small and slim.
- Especially suited for use in electret condenser microphone for audio equipments and telephones.
- Excellent voltage characteristics.
- Excellent noise characteristics.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Input Voltage	V _{IN}		-1 to 1	V
Output Voltage	V _{OUT}		0.5 to 7	V
Allowable Power Dissipation	P _D		100	mW
Storage Temperature	T _{stg}		-55 to +150	°C
Operating Temperature	T _{opr}		0 to +70	°C

Electrical Characteristics at Ta=25°C

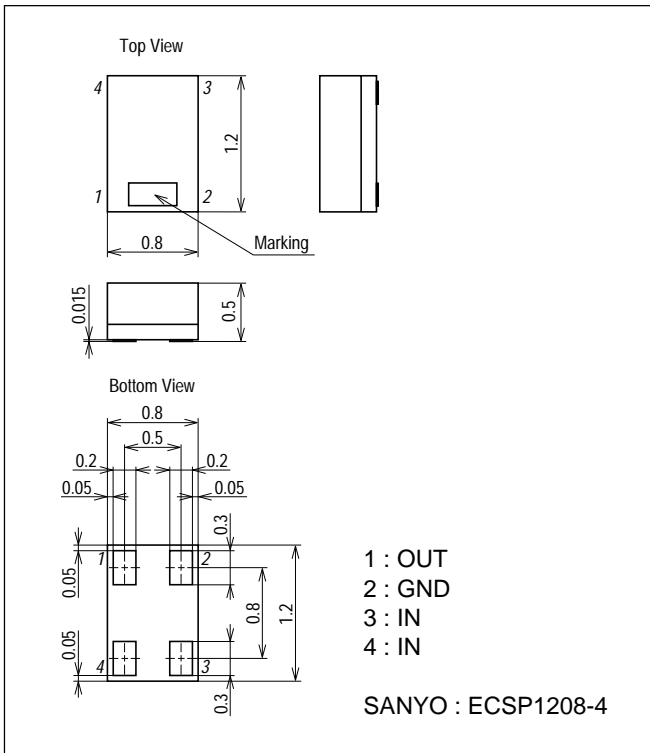
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Supply Voltage	V _{DD}		1.5		5	V
Input Capacitance	C _{iss}	V _{DD} =2V, f=1MHz		3		pF
Consumption Current	I _{DD}	V _{IN} =0, V _{DD} =2V, R _L =15kΩ		60	90	μA
[Ta=25°C, V _{DD} =2.0V, R _L =15kΩ, C _{in} =5pF, See specified Test Circuit.]						
Voltage Gain	G _V	f=1kHz, V _{IN} =10mV		-5		dB
Reduced Voltage Characteristics	ΔG _{VV}	f=1kHz, V _{IN} =10mV, V _{CC} =2.0→1.5V		-0.3		dB
Frequency Characteristics	ΔG _{Vf}	f=1kHz→110Hz		0		dB
Total Harmonic Distortion	THD	f=1kHz, V _{IN} =30mV		0.1		%
Output Noise Voltage	V _{NO}	V _{IN} =0, A curve		-113		dB

Marking : AT

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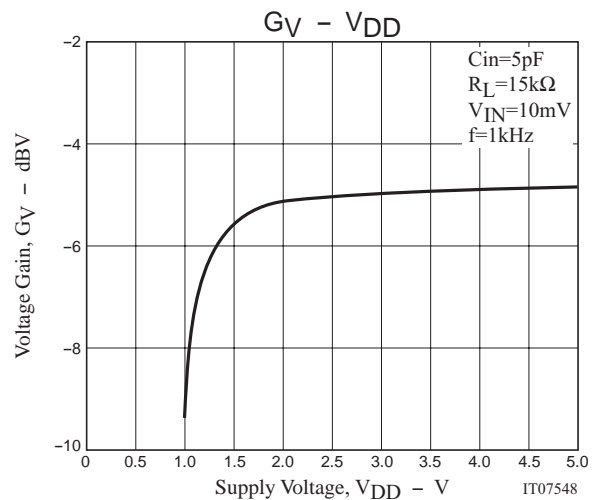
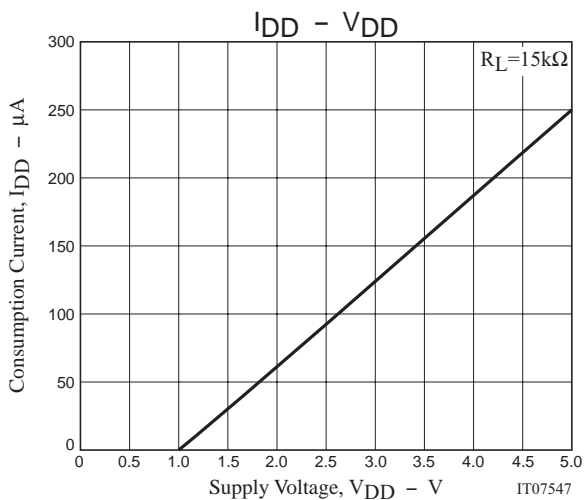
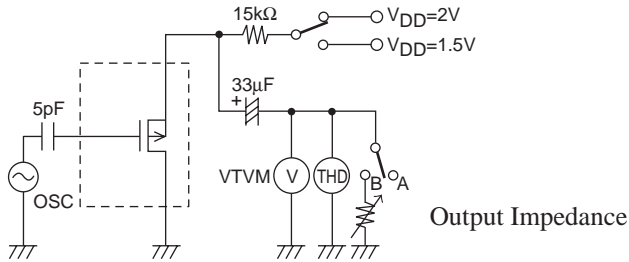
Package Dimensions

unit : mm
2235

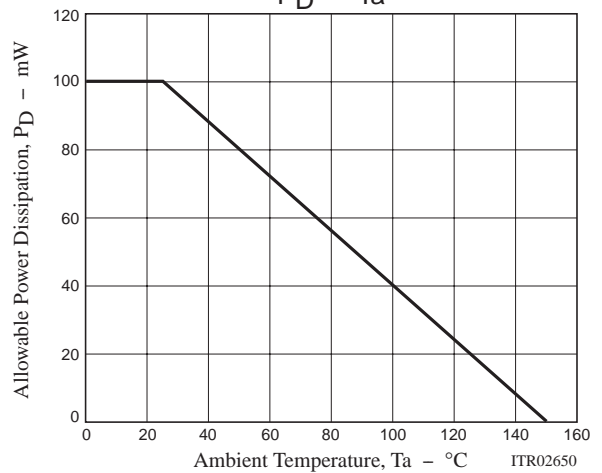
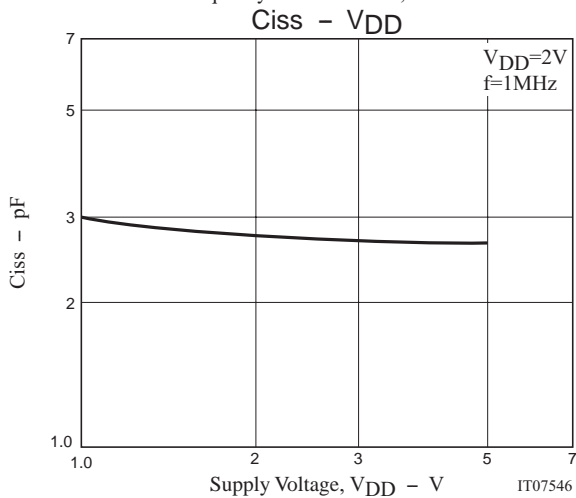
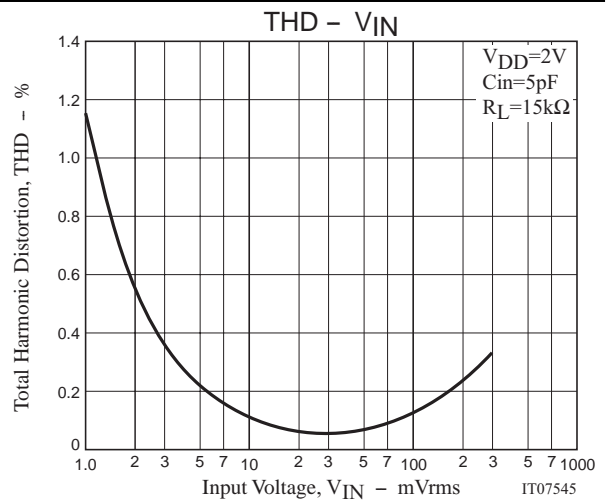
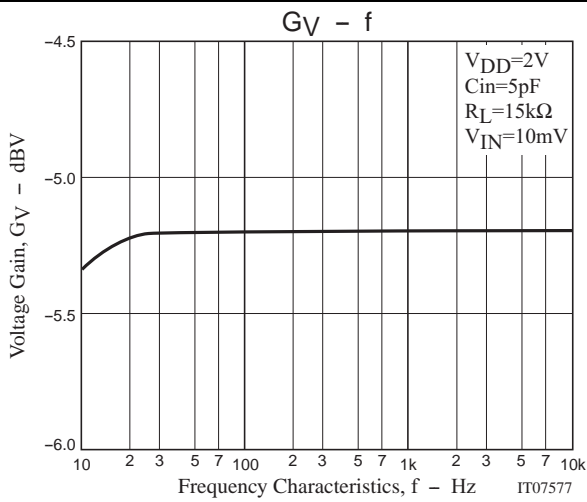


Test Circuit

- Voltage gain
- Frequency Characteristics
- Distortion
- Reduced Voltage Characteristics



TND731E4



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