

EC3A01H

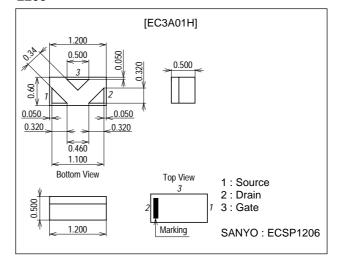
Electret Condenser Microphone Applications

Features

- Ultraminiature (1206 size) and thin (0.5mm) leadless package.
- Especially suited for use in electret condenser microphone for audio equipments and telephones.
- · Excellent voltage characteristics.
- · Excellent transient characteristics.
- · Adoption of FBET process.

Package Dimensions

unit : mm 2209



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Gate-to-Drain Voltage	V _{GDO}		-20	V
Gate Current	IG		10	mA
Drain Current	ID		1	mA
Allowable Power Dissipation	PD		100	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol Conditions	O and distance	Ratings			I I a is
		min	typ	max	Unit	
Gate-to-Drain Breakdown Voltage	V(BR)GDO	IG=-100μA	-20			V
Cutoff Voltage	VGS(off)	V _{DS} =5V, I _D =1μA	-0.2	-0.6	-1.2	V
Drain Current	IDSS	V _{DS} =5V, V _{GS} =0	140*		350*	μΑ
Forward Transfer Admittance	yfs	V _{DS} =5V, V _{GS} =0, f=1kHz	0.5	1.2		mS
Input Capacitance	Ciss	V _{DS} =5V, V _{GS} =0, f=1MHz		3.5		pF
Reverse Transfer Capacitance	Crss	V _{DS} =5V, V _{GS} =0, f=1MHz		0.65		pF

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[Ta=25°C, V_{CC}=4.5V, R_L=1kΩ, Cin=15pF, See Specified Test Circuit]

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Voltage Gain	GV	f=1kHz, V _{IN} =10mV		-3.0		dB
Reduced Voltage Characteristics	ΔGVV	f=1kHz, V _{IN} =10mV, V _{CC} =4.5→1.5V		-1.2	-3.5	dB
Frequency Characteristics	ΔGvf	f=1kHz→110kHz			-1.0	dB
Input Impedance	Z _{IN}	f=1kHz	25			MΩ
Output Impedance	ZO	f=1kHz		1000		Ω
Total Harmonic Distortion	THD	f=1kHz, V _{IN} =30mV		1.2		%
Output Noise Voltage	VNO	V _{IN} =0, A Curve			-110	dB

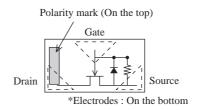
^{*}EC3A01H is classified by IDSS as follows. (unit : μA)

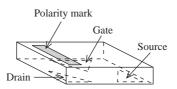
Inco	V4	V5
טטי	140 to 240	210 to 350

Type No. Indication (Top view)

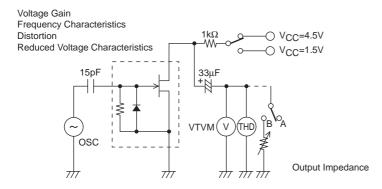
Electrical Connection (Top view)

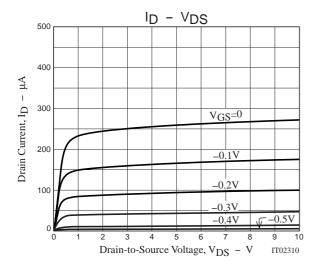


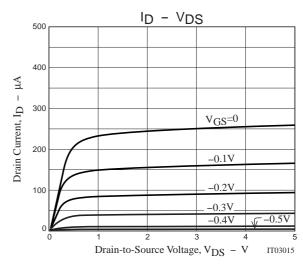


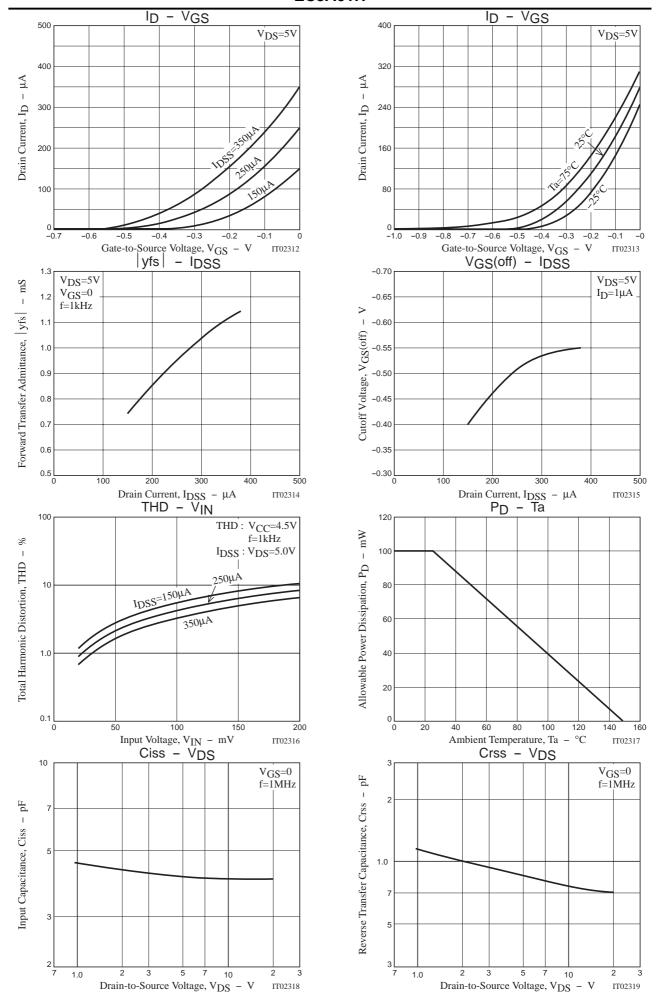


Test Circuit

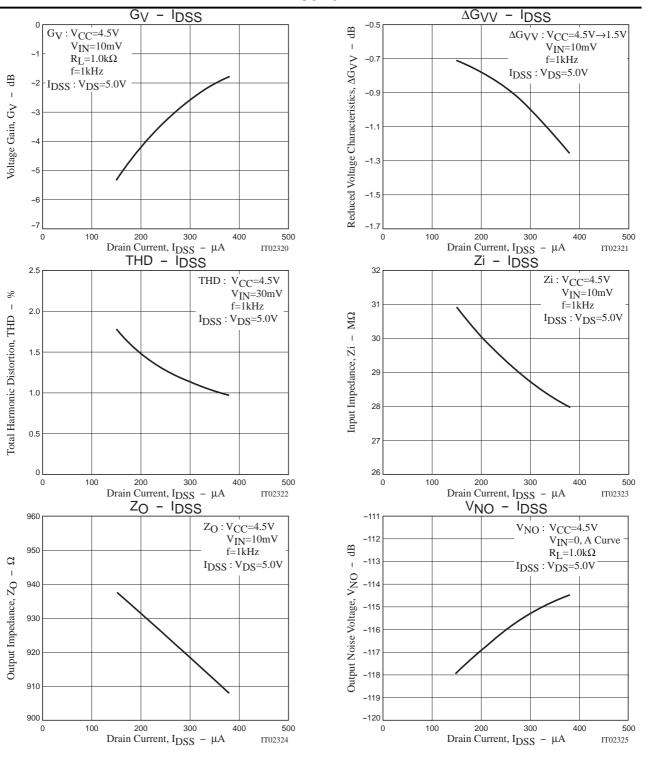








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