

Ordering number : ENA0509



SANYO Semiconductors

## DATA SHEET

N-Channel Junction Silicon FET

# EC3A04B — Low-Frequency General-Purpose Amplifier, Impedance Converter Applications

## Applications

- Low-frequency general-purpose amplifier, impedance conversion, infrared sensor applications.

## Features

- Small IGSS.
- Small Ciss.
- Ultraminiature package facilitates miniaturization in end products.
- Halogen free compliance (UL94HB).

## Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V <sub>DSX</sub>		30	V
Gate-to-Drain Voltage	V <sub>GDS</sub>		-30	V
Gate Current	I <sub>G</sub>		10	mA
Drain Current	I <sub>D</sub>		10	mA
Allowable Power Dissipation	P <sub>D</sub>		100	mW
Junction Temperature	T <sub>J</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	V <sub>(BR)GDS</sub>	I <sub>G</sub> =-10μA, V <sub>DS</sub> =0V	-30			V
Gate-to-Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> =-20V, V <sub>DS</sub> =0V			-1.0	nA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =1μA	-0.18	-0.65	-2.2	V

Marking : KC

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SANYO Semiconductor Co., Ltd.

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN



EC3A04B

Continued from preceding page.

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain Current	$I_{DSS}$	$V_{DS}=10V, V_{GS}=0V$	0.6*		3.0*	mA
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10V, V_{GS}=0V, f=1kHz$	3.0	5.0		mS
Input Capacitance	$C_{iss}$	$V_{DS}=10V, V_{GS}=0V, f=1MHz$		4		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS}=10V, V_{GS}=0V, f=1MHz$		1.1		pF
Static Drain-to-Source On-State Resistance	$R_{DS(on)}$	$V_{DS}=10mV, V_{GS}=0V$		200		$\Omega$

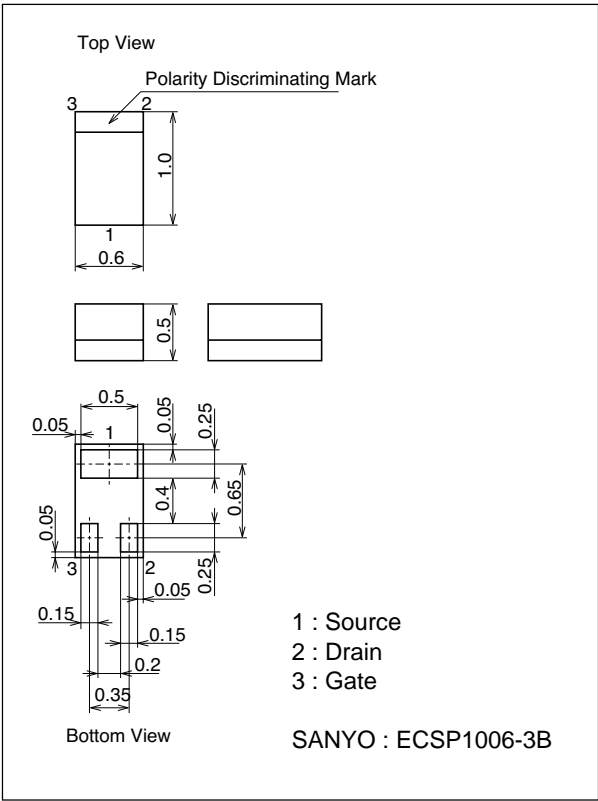
\* : The EC3A04B is classified by  $I_{DSS}$  as follows : (unit : mA).

Rank	2	3
$I_{DSS}$	0.6 to 1.5	1.2 to 3.0

Package Dimensions

unit : mm (typ)

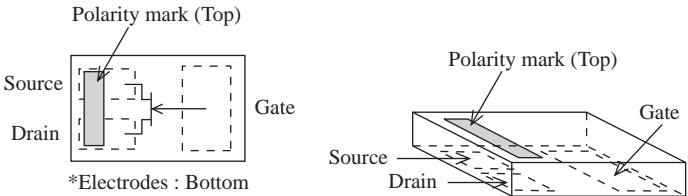
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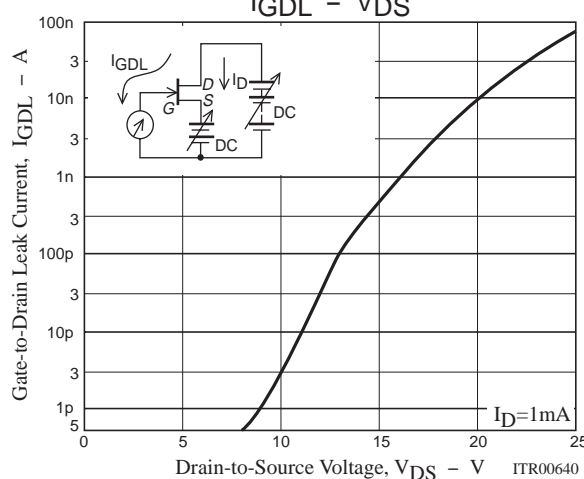
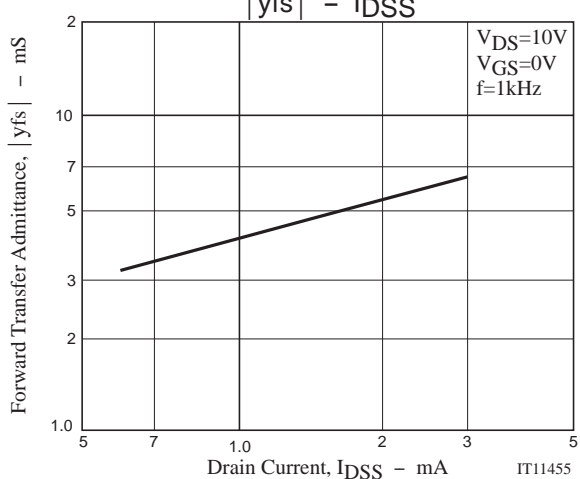
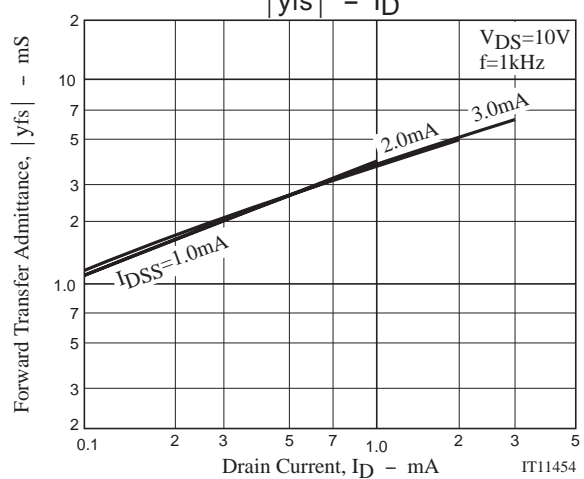
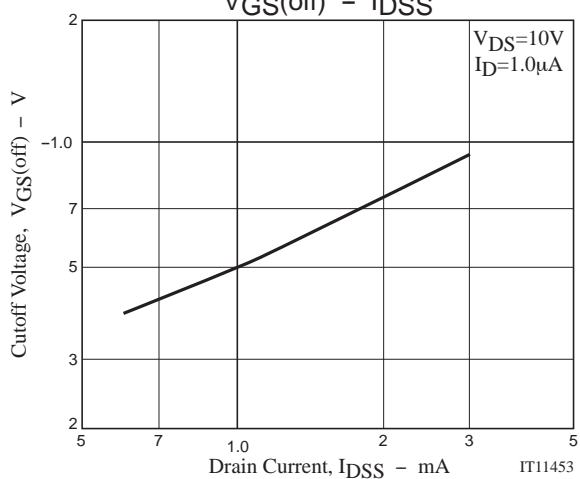
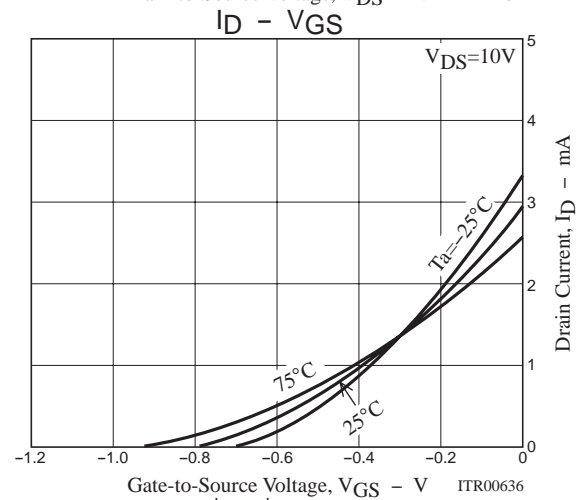
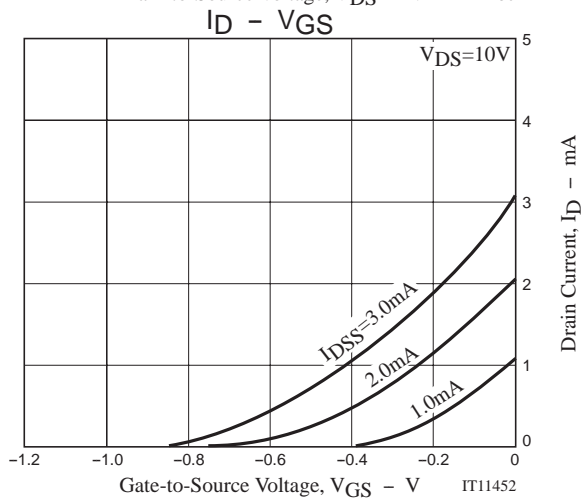
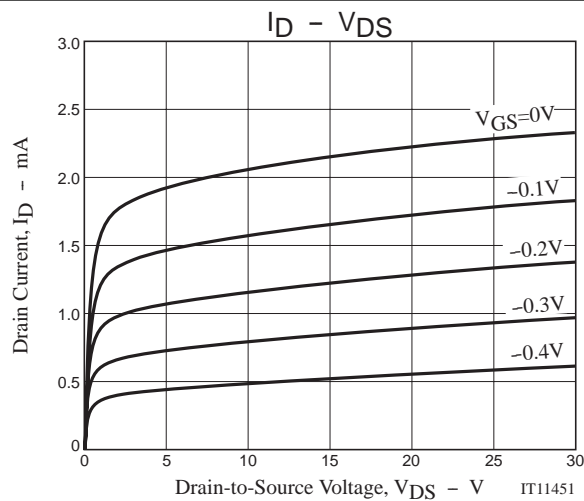
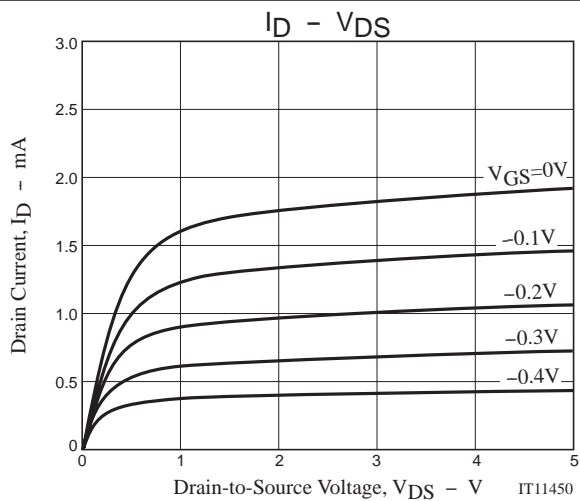
Type No. Indication (Top view)



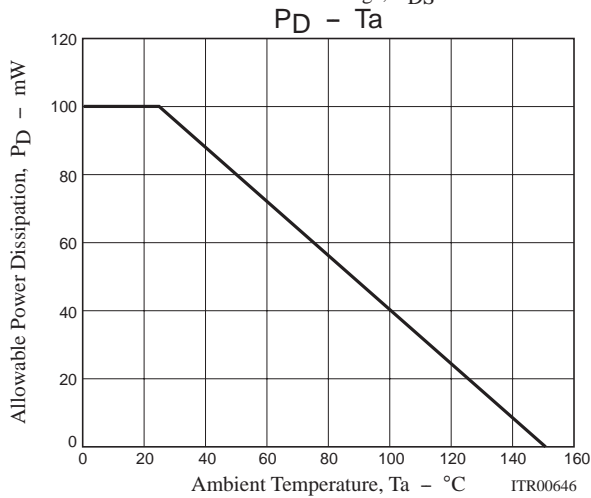
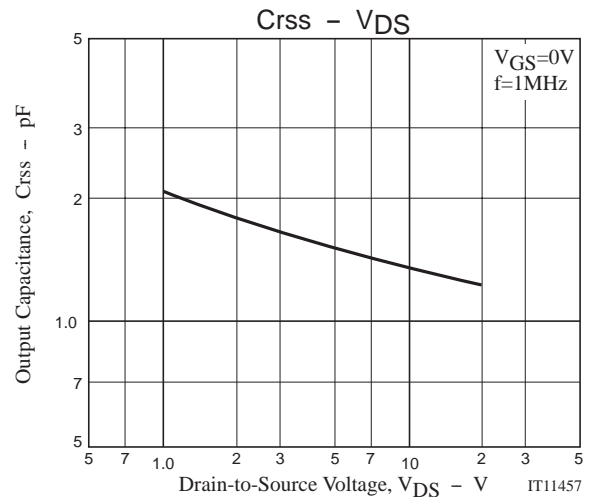
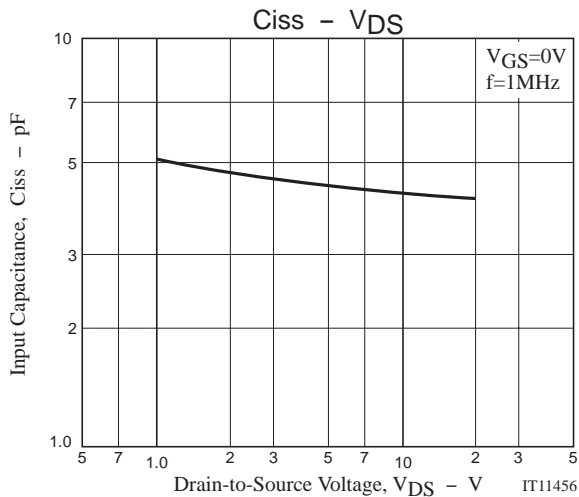
Electrical Connection (Top view)



EC3A04B



## EC3A04B



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