



SANYO Semiconductors

DATA SHEET

N-Channel Junction Silicon FET

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

Applicatins

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

Features

- Small I_{GSS} .
- Small C_{iss} .
- Ultraminiature package facilitates miniaturization in end products.
- Halogen free compliance (UL94HB).

Specifications

Absolute Maximum Ratings at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings		Unit
Drain-to-Source Voltage	V_{DSX}			30	V
Gate-to-Drain Voltage	V_{GDS}			-30	V
Gate Current	I_G			10	mA
Drain Current	I_D			10	mA
Allowable Power Dissipation	P_D			100	mW
Junction Temperature	T_j			150	°C
Storage Temperature	T_{stg}			-55 to +150	°C

Electrical Characteristics at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G=-10\mu A, V_{DS}=0V$	-30			V
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=-20V, V_{DS}=0V$			-1.0	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1\mu A$	-0.18	-0.65	-2.2	V

Marking : KC

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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		Ω

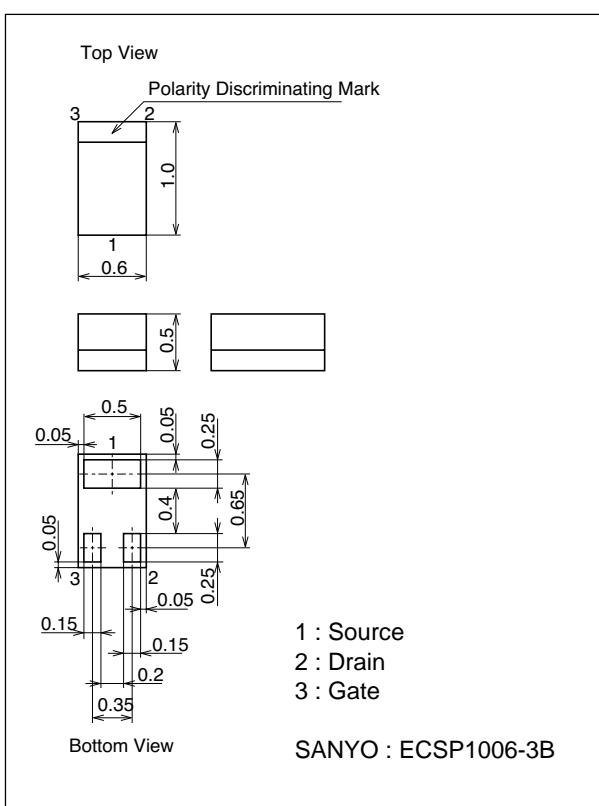
* : The EC3A04B is classified by IDSS as follows : (unit : mA).

Rank	2	3
IDSS	0.6 to 1.5	1.2 to 3.0

Package Dimensions

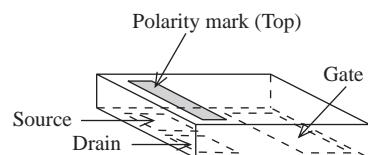
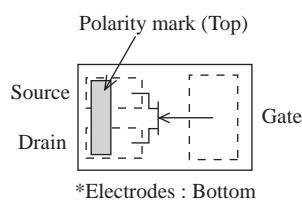
unit : mm (typ)

7039-002

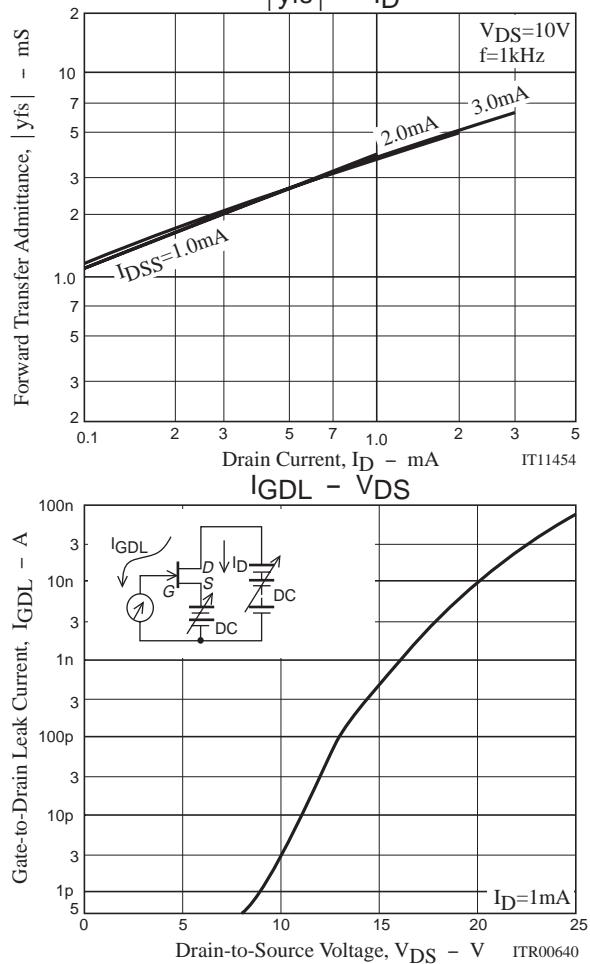
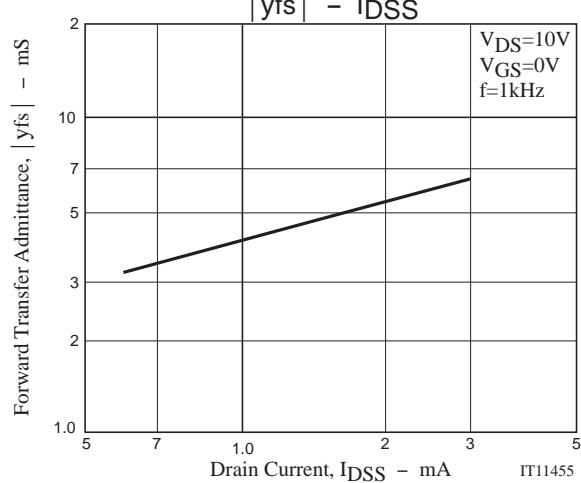
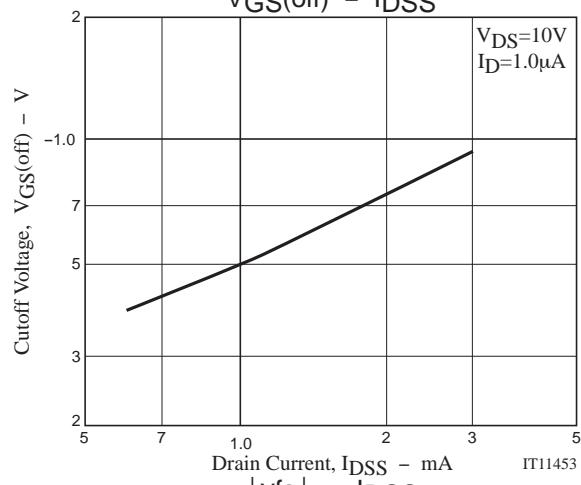
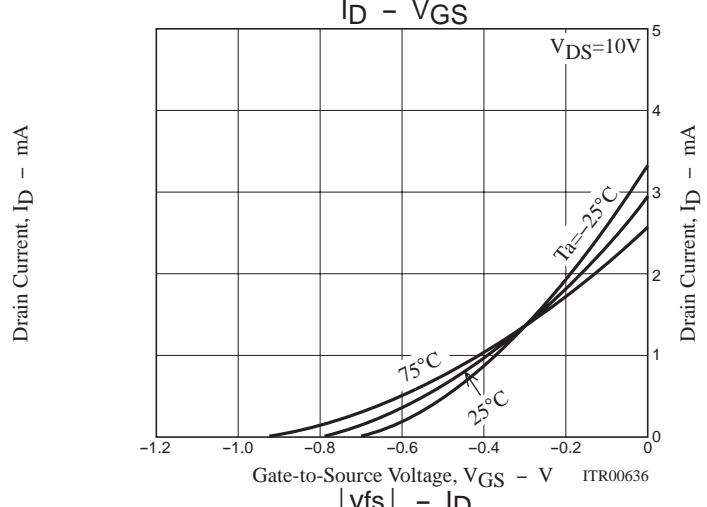
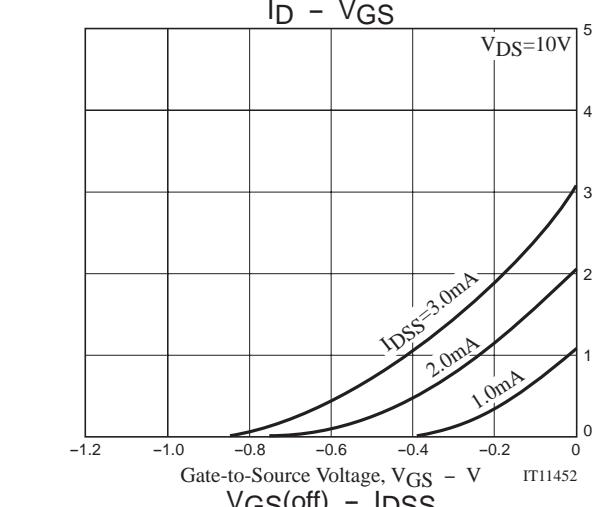
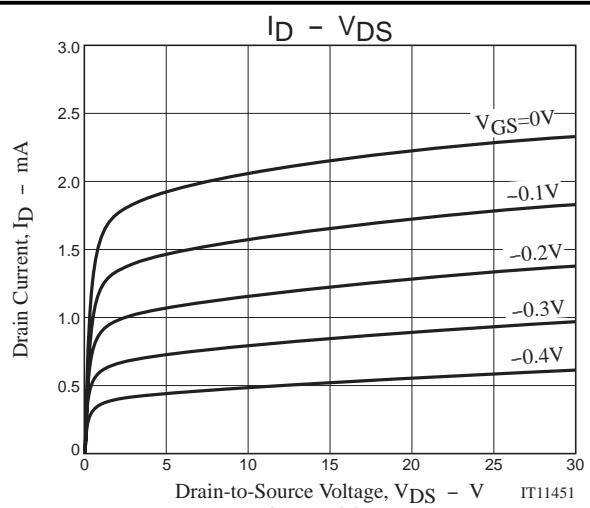
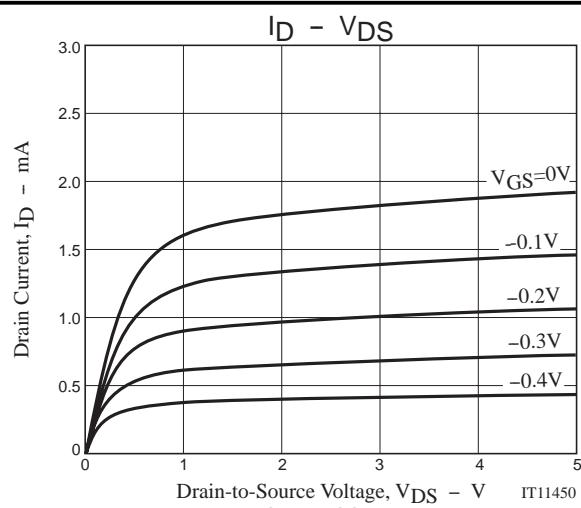


Type No. Indication (Top view)

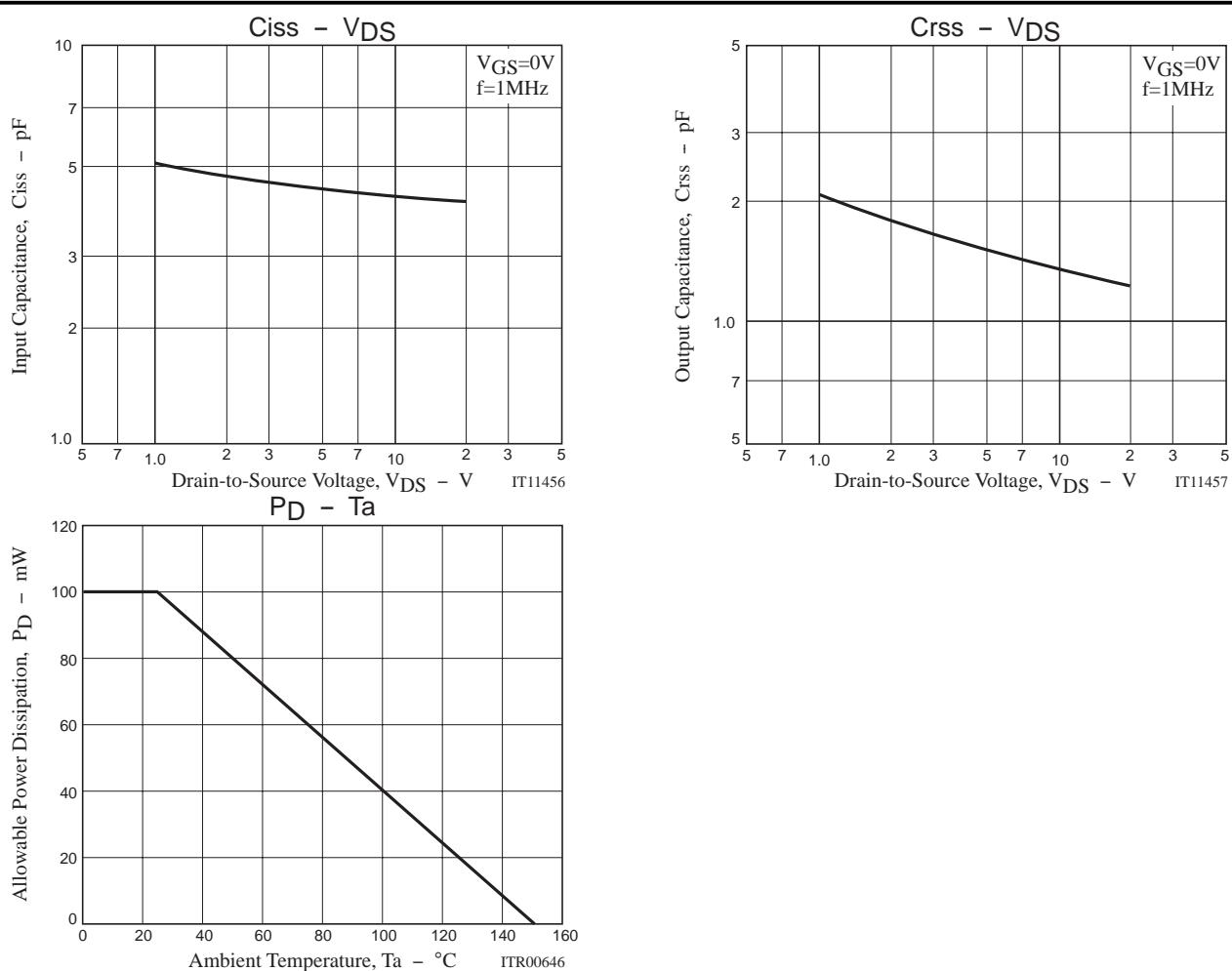
Electrical Connection (Top view)



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