

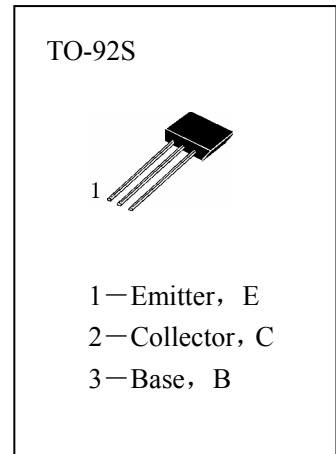


SWITCHING CIRCUIT, INVERTER,

INTERFACE CIRCUIT, DRIVER CIRCUIT

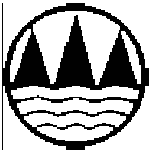
ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

- T<sub>stg</sub>—Storage Temperature..... -55~150°C
- T<sub>j</sub>—Junction Temperature.....150°C
- P<sub>C</sub>—Collector Dissipation.....300mW
- V<sub>CB0</sub>—Collector-Base Voltage.....-50V
- V<sub>CEO</sub>—Collector-Emitter Voltage.....-50V
- V<sub>EBO</sub>—Emitter-Base Voltage.....-10V
- I<sub>C</sub>—Collector Current.....-100mA



ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV <sub>CB0</sub>	Collector-Base Breakdown Voltage	-50			V	I <sub>C</sub> =-10 μ A, I <sub>E</sub> =0
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	-50			V	I <sub>C</sub> =-0.1mA, I <sub>B</sub> =0
I <sub>CBO</sub>	Collector Cut-off Current			-0.1	μ A	V <sub>CB</sub> =-40V, I <sub>E</sub> =0
I <sub>CEO</sub>	Collector Cut-off Current			-0.5	μ A	V <sub>CE</sub> =-40V, I <sub>B</sub> =0
I <sub>EBO</sub>	Emitter Cut-off Current	-195	-250	-360	μ A	V <sub>EB</sub> =-5V, I <sub>C</sub> =0
H <sub>FE</sub>	DC Current Gain	30				V <sub>CE</sub> =-5V, I <sub>C</sub> =-5mA
V <sub>CE(sat)</sub>	Collector- Emitter Saturation Voltage		-0.1	-0.3	V	I <sub>C</sub> =-10mA, I <sub>B</sub> =-0.5mA
V <sub>I (off)</sub>	Input Off Voltage	-0.8	-1.1	-1.5	V	V <sub>CE</sub> =-5V, I <sub>C</sub> =-0.1mA
V <sub>I (on)</sub>	Input On Voltage	-1.0	-2.0	-4.0	V	V <sub>CE</sub> =-0.2V, I <sub>C</sub> =-10mA
R <sub>1</sub>	Input Resistor	7.0	10	13	Kohm	
R <sub>2/R1</sub>	Resistor Ratio	0.8	1.0	1.2		
f <sub>T</sub>	Current Gain-Bandwidth Product		250		MHz	V <sub>CE</sub> =-10V, I <sub>C</sub> =-5mA



● Electrical characteristic curves

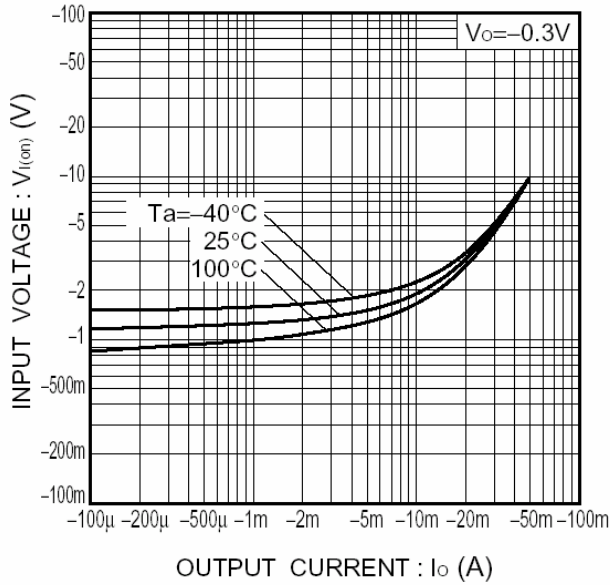


Fig.1 Input voltage vs. output current (ON characteristics)

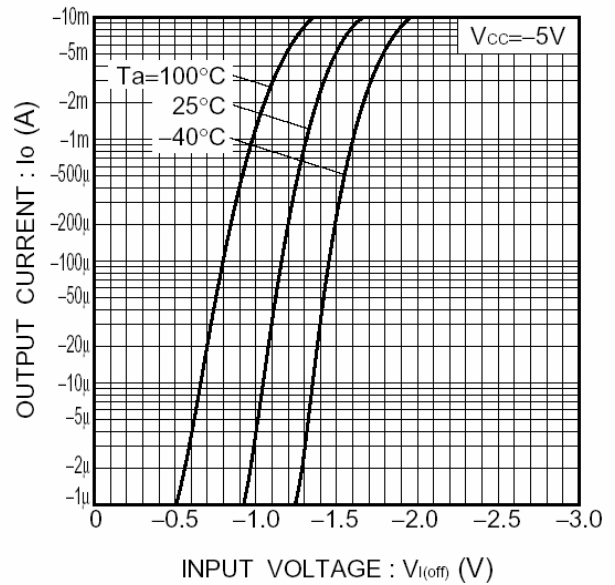


Fig.2 Output current vs. input voltage (OFF characteristics)

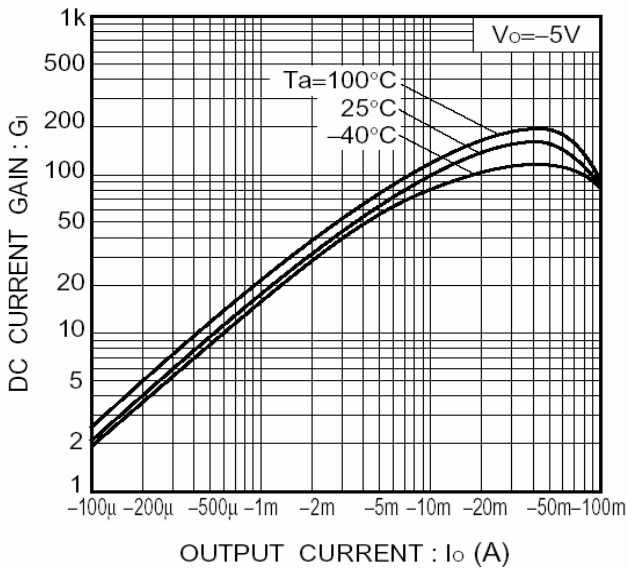


Fig.3 DC current gain vs. output current

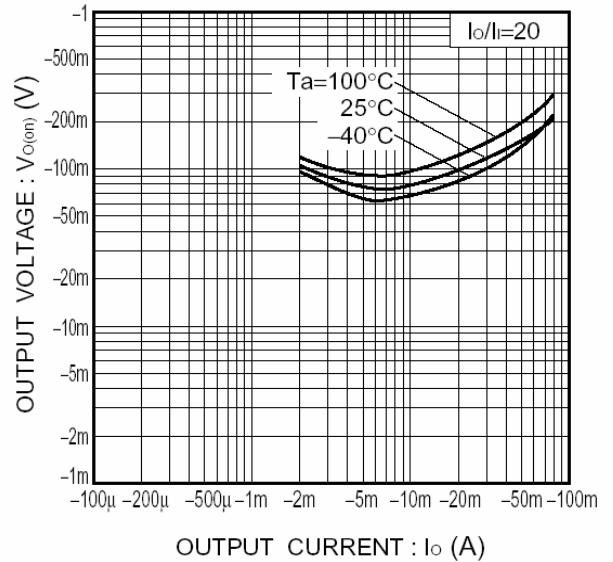


Fig.4 Output voltage vs. output current