



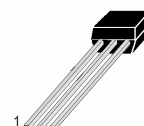
APPLICATIONS

Switching Circuit , Interface Circuit.

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

T_{stg}	Storage Temperature.....	-55~150
T_j	Junction Temperature.....	150
P_C	Collector Dissipation.....	300mW
V_{CBO}	Collector-Base Voltage.....	-50V
V_{CEO}	Collector-Emitter Voltage.....	-50V
V_{EBO}	Emitter-Base Voltage.....	-6V
I_C	Collector Current.....	-100mA

TO-92S



- 1—Emitter , E
- 2—Collector , C
- 3—Base , B

ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BVC_{BO}	Collector-Base Breakdown Voltage	-50			V	$I_C=-10\mu A, I_E=0$
BVC_{EO}	Collector-Emitter Breakdown Voltage	-50			V	$I_C=-1mA, I_B=0$
IC_{BO}	Collector Cut-off Current			-0.1	μA	$V_{CB}=-40V, I_E=0$
IC_{EO}	Collector Cut-off Current			-0.5	μA	$V_{CE}=-40V, I_B=0$
IE_{BO}	Emitter Cut-off Current	-67	-88	-125	μA	$V_{EB}=-5V, I_C=0$
H_{FE}	DC Current Gain	30				$V_{CE}=-5V, I_C=-5mA$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage		-0.1	-0.3	V	$I_C=-10mA, I_B=-0.5mA$
$V_I(off)$	Input Off Voltage	-0.5	-0.7	-0.9	V	$V_{CE}=-5V, I_C=-0.1mA$
$V_I(on)$	Input On Voltage	-1.0	-2.0	-4.0	V	$V_{CE}=-0.2V, I_C=-10mA$
R1	Input Resistor	7.0	10	13	Kohm	
R1/ R2	Resistor Ratio	0.193	0.213	0.234		
f_T	Current Gain-Bandwidth Product		250		MHz	$V_{CE}=-10V, I_C=-5mA$
Cob	Output Capacitance		5.5		pF	$V_{CB}=-10V, f=1MHz$



●Electrical characteristic curves

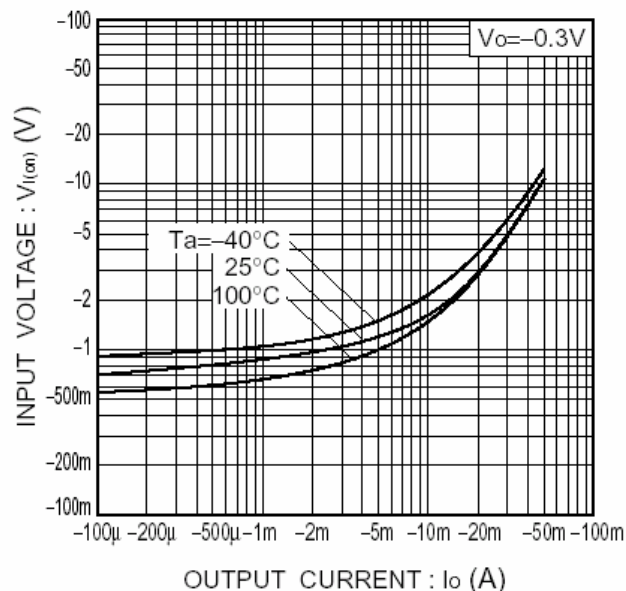


Fig.1 Input voltage vs. output current (ON characteristics)

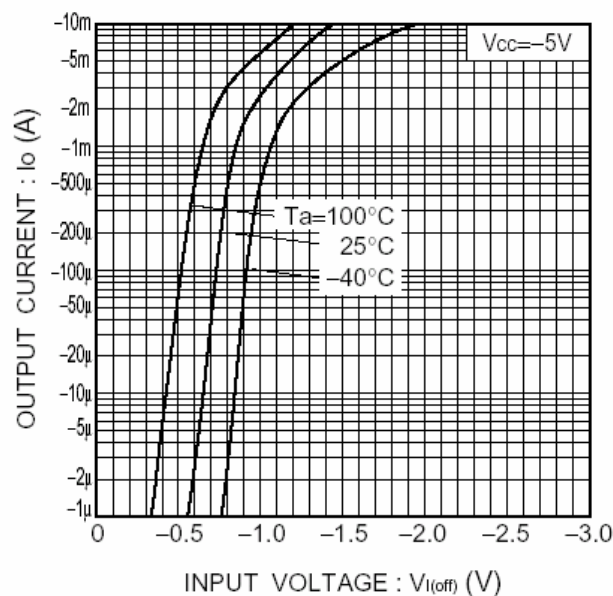


Fig.2 Output current vs. input voltage (OFF characteristics)

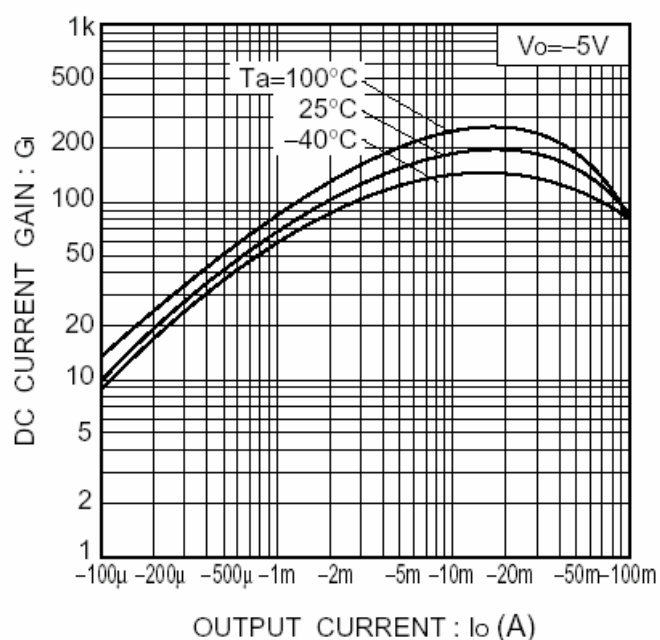


Fig.3 DC current gain vs. output current

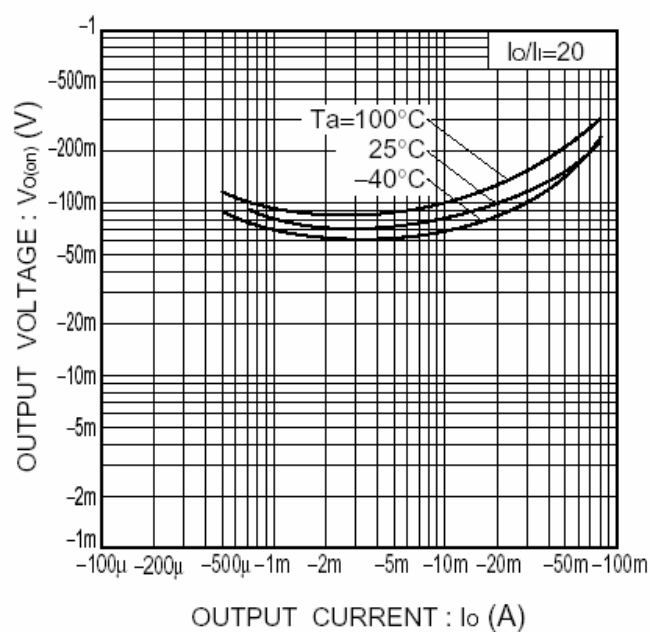


Fig.4 Output voltage vs. output current