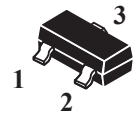
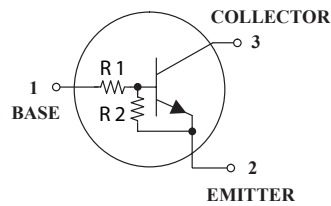


Bias Resistor Transistor NPN Silicon

(Pb) Lead(Pb)-Free



SOT-23

Absolute maximum ratings ($T_A = 25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	50	V
Input voltage	V_{IN}	-5~+12	V
Output current	I_C	500	mA
Power dissipation	P_d	200	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55~+150	$^\circ\text{C}$

Electrical characteristics ($T_A = 25^\circ\text{C}$)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Input voltage	$V_{I(off)}$	-	-	0.3	V	$V_{CC} = 5V, I_o = 100\mu\text{A}$
	$V_{I(on)}$	2	-	-		$V_o = 0.3V, I_o = 20\text{ mA}$
Output voltage	$V_{o(on)}$	-	0.1	0.3	V	$I_o/I_i = 50\text{ mA}/2.5\text{ mA}$
Input current	I_i	-	-	3.6	mA	$V_i = 5V$
Output current	$I_{o(off)}$	-	-	0.5	μA	$V_{CC} = 50V, V_F = 0V$
DC current gain	h_{FE}	56	-	-		$V_o = 5V, I_o = 50\text{ mA}$
Input resistance	R_1	1.54	2.2	2.86	k Ω	-
Resistance ratio	R_2/R_1	3.6	4.5	5.5		-
Transition frequency	f_T	-	200	-	MHz	$V_{CE} = 10V, I_E = -500\text{ mA}, f = 100\text{MHz}^*$

* Transition frequency of the device

DEVICE MARKING : F62

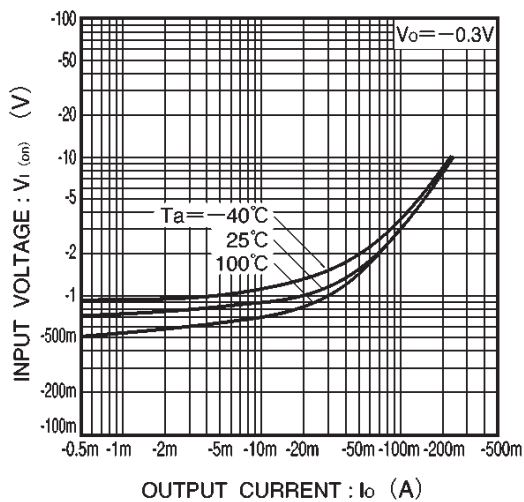


Fig.1 Input voltage vs. output current (ON characteristics)

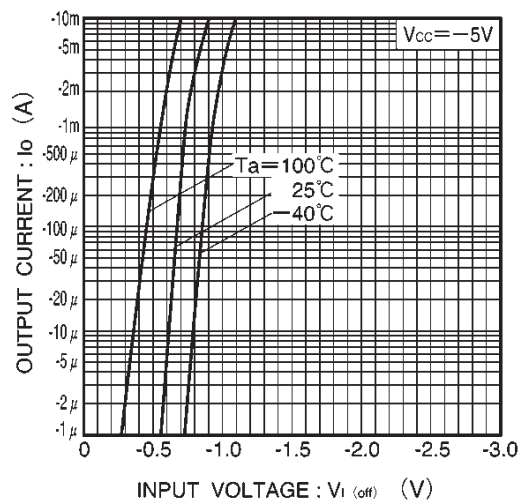


Fig.2 Output current vs. input voltage (OFF characteristics)

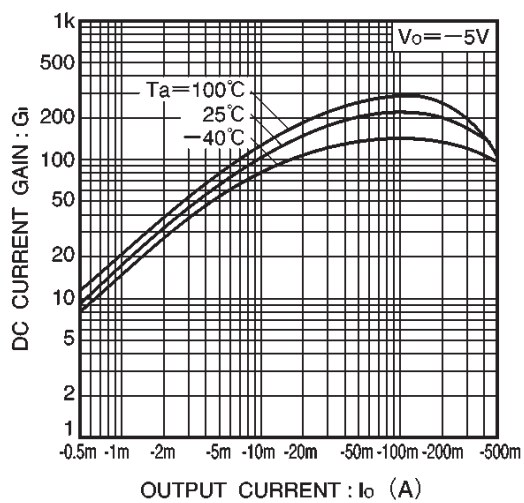


Fig.3 DC current gain vs. output current

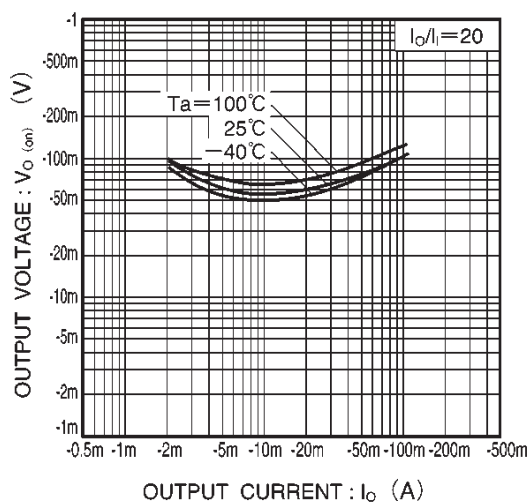
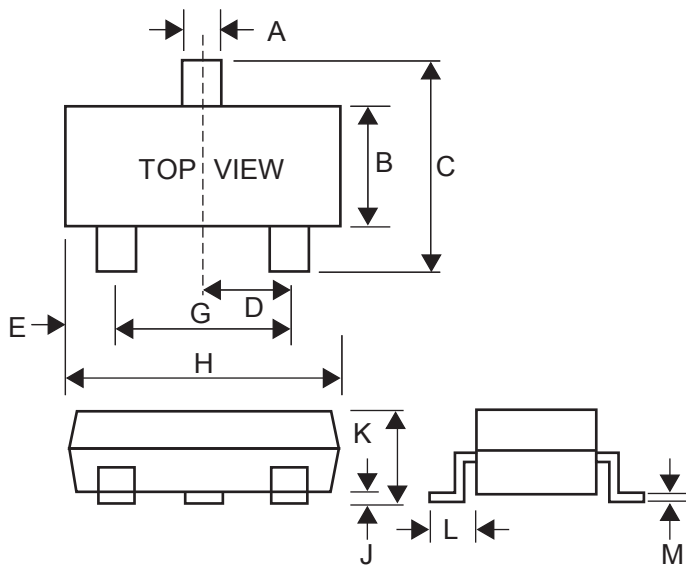


Fig.4 Output voltage vs. output current

SOT-23 Outline Dimensions

Unit:mm



Dim	Min	Max
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25