

**Descriptions**

- Switching application
- Interface circuit and driver circuit application

**Features**

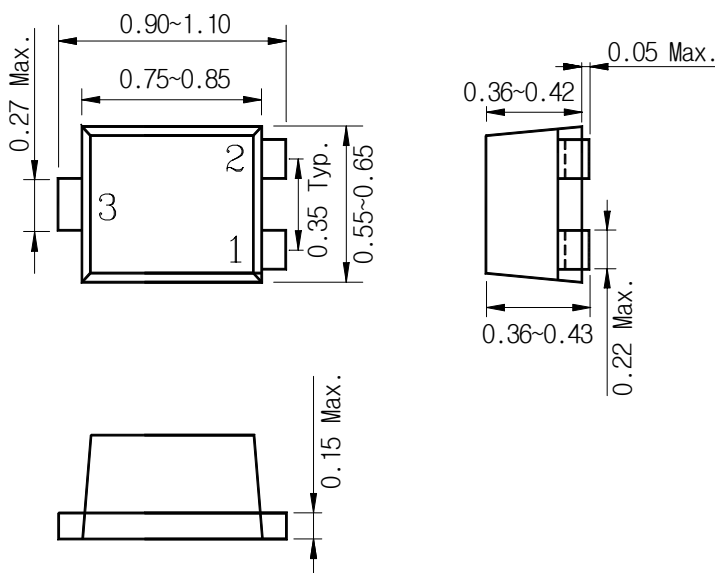
- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- Complementary pair with NT358

**Ordering Information**

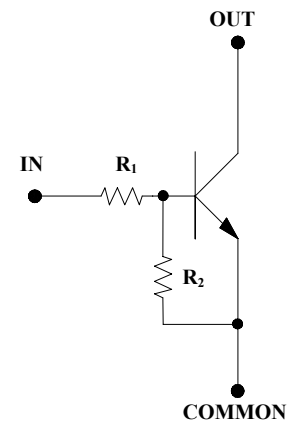
Type NO.	Marking	Package Code
NT357	D	SOT-923

**Outline Dimensions**

unit : mm



**• Equivalent Circuit**



R <sub>1</sub>	R <sub>2</sub>
47KΩ	47KΩ

**PIN Connections**

1. IN
2. COMMON
3. OUT

## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	$V_O$	20	V
Input voltage	$V_I$	20,-10	V
Output current	$I_O$	50	mA
Power dissipation	$P_D$	50	mW
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{stg}$	-55 ~ 150	°C

## Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	$I_{O(OFF)}$	$V_O=20V, V_I=0$	-	-	500	nA
DC current gain	$G_I$	$V_O=5V, I_O=10mA$	90	-	-	-
Output voltage	$V_{O(ON)}$	$I_O=5mA, I_I=0.25mA$	-	-	0.15	V
Input voltage (ON)	$V_{I(ON)}$	$V_O=0.2V, I_O=5mA$	-	2.8	5.0	V
Input voltage (OFF)	$V_{I(OFF)}$	$V_O=5V, I_O=0.1mA$	1.0	1.2	-	V
Transition frequency	$f_T^*$	$V_O=10V, I_O=5mA$	-	200	-	MHz
Input current	$I_I$	$V_I=5V, I_O=0$	-	-	0.18	mA
Input resistor (Input to base)	$R_1$	-	33	47	61	KΩ
Input resistor (Base to common)	$R_2$	-	33	47	61	KΩ

\* : Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1  $I_O - V_{I(ON)}$

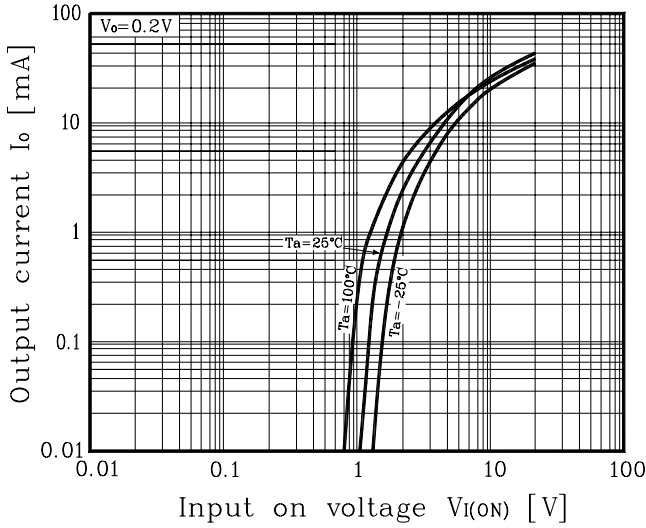


Fig. 2  $I_O - V_{I(OFF)}$

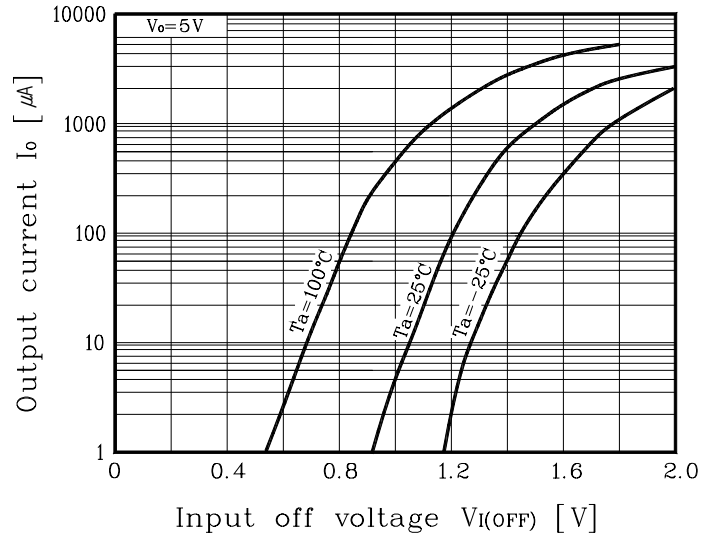
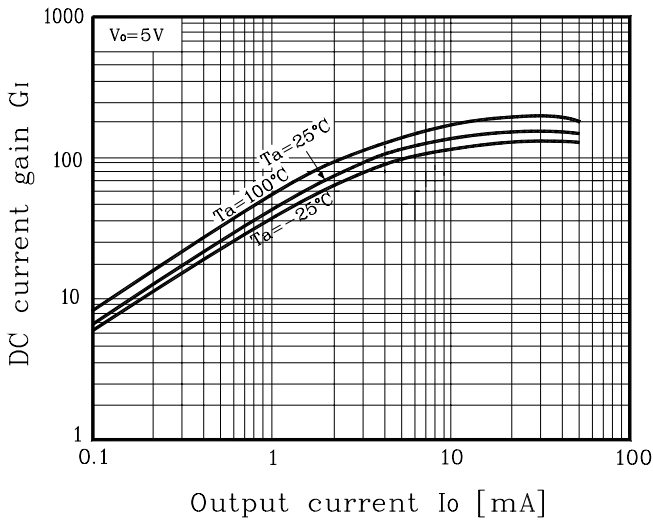


Fig. 3  $G_I - I_O$



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