

Descriptions

- Switching application
- Interface circuit and driver circuit application

Features

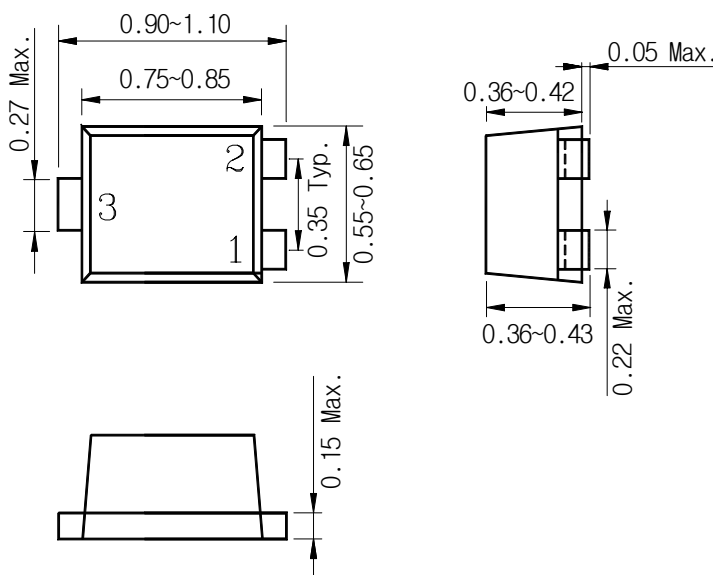
- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- Complementary pair with NT358

Ordering Information

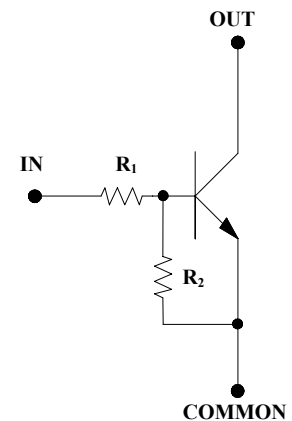
Type NO.	Marking	Package Code
NT357	D	SOT-923

Outline Dimensions

unit : mm



• Equivalent Circuit



R ₁	R ₂
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 $I_O - V_{I(ON)}$

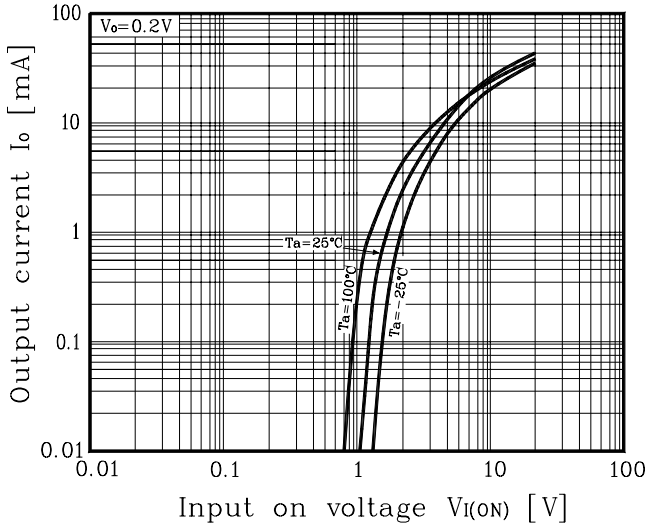


Fig. 2 $I_O - V_{I(OFF)}$

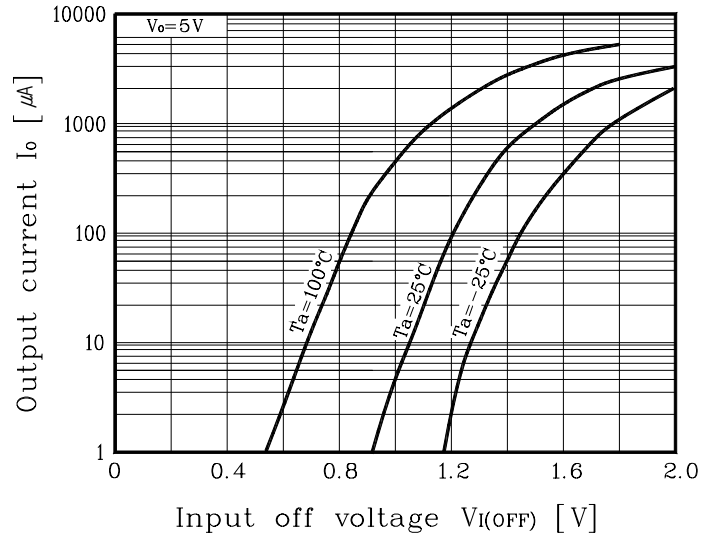
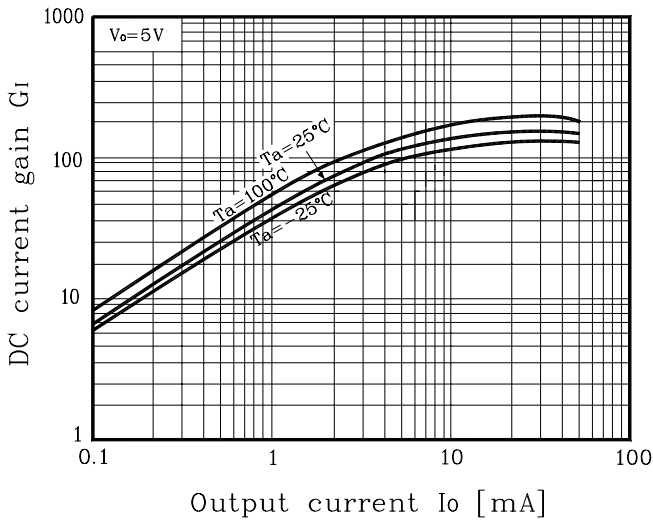


Fig. 3 $G_I - I_O$



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