TPDTA114YCA
Digital Transistor(PNP)

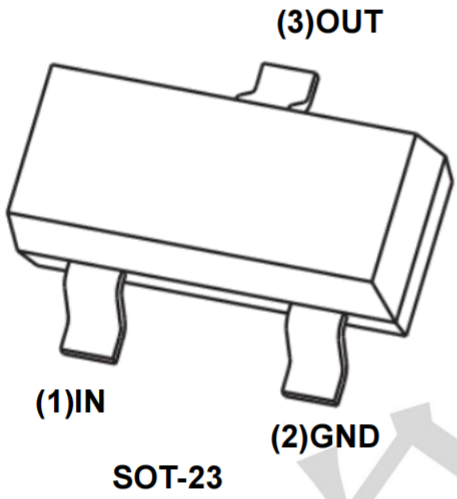
Product Summary

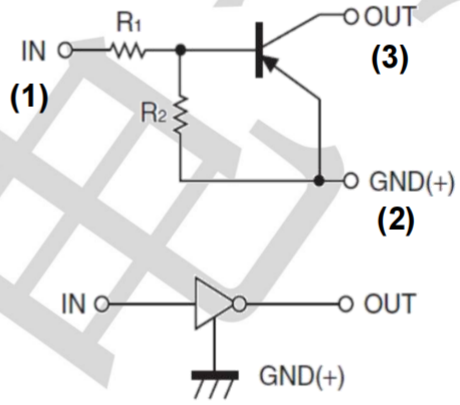
- VCC = -50V
- IC = -100mA
- R1 = 10kΩ
- R2 = 47kΩ

Features

- Built-in bias resistors
- making device design easy
- almost completely eliminating parasitic effects

Circuit diagram and pin information





Absolute Maximum Ratings

(Ta=25°C unless otherwise specified)

PARAMETER	SYMBOL	LIMIT	UNIT
Supply Voltage	VCC	-50	V
Input Voltage	VIN	-40~+6V	V
Collector current	IC	-100	mA
Power Total Dissipation @ T_A=25ºC	P_D	200	mW
Maximum Operating Junction Temperature	T_J	+150	°C
Storage Temperature Range	TSTG	-55 to +150	°C

Electrical Characteristics

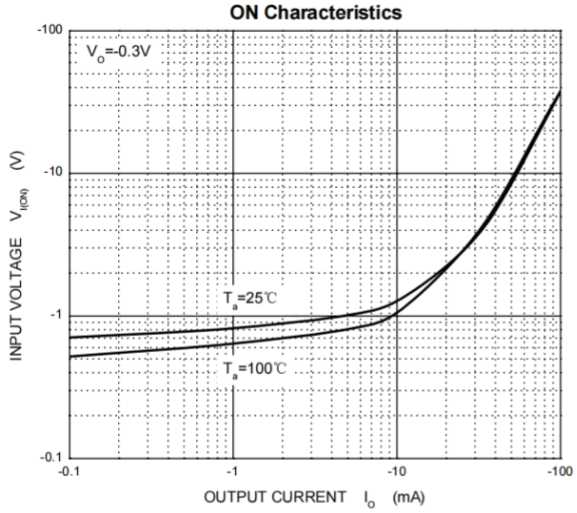
(TA=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	$V_{I(off)}$	V_{CC}=-5V,I_O=-100μA	-0.3	--	--	V
	$V_{I(on)}$	V_O=-0.3V ,I_O=-10mA	--	--	-1.4	V
Output voltage	$V_{O(on)}$	I_O/I_I=-10mA/-0.5mA	--	--	-0.3	V
Input current	I_I	V_I=-5V	--	--	-0.8	mA
Output current	$I_{O(off)}$	V_{CC}=-50V,V_I=0	--	--	-0.5	μA
DC current gain	G_I	V_O=-5V,I_O=-10mA	80	--	--	--
Input resistance	R_1		7	10	13	kΩ
Resistance ratio	R_2/R_1		3.7	4.7	5.7	--
Transition frequency	f_T	V_O=-10V ,I_O=-5mA, =100MHz	--	250	--	MHz

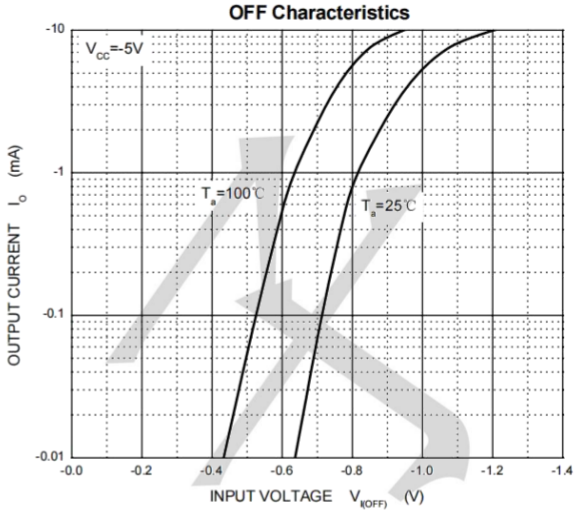
Note:
1.Characteristics of built-in transistor
2.Each terminal mounted on a reference land

Typical Performance Characteristics(TA=25°C)

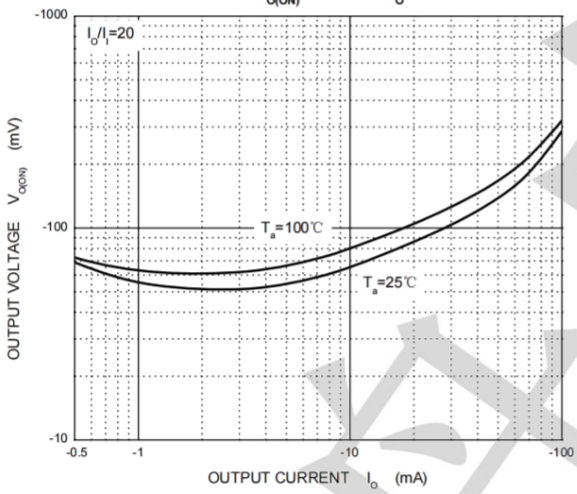
ON Characteristics



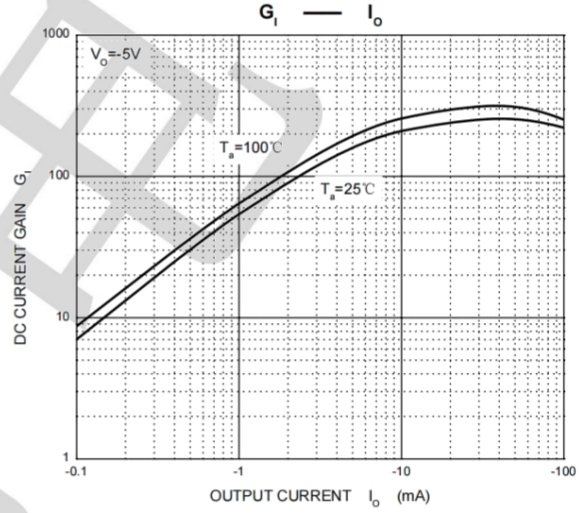
OFF Characteristics



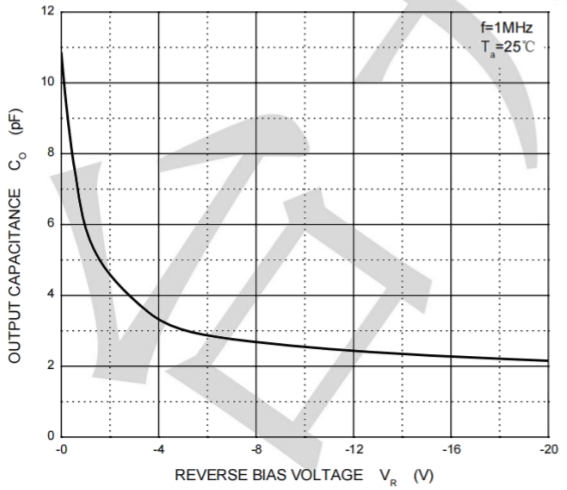
$V_{O(ON)}$ — I_O



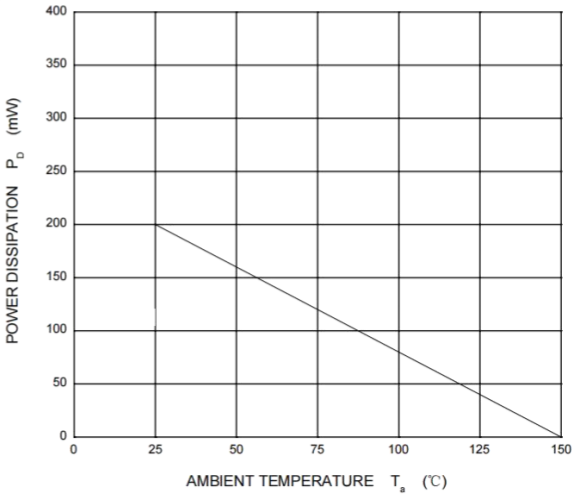
G_I — I_O



C_O — V_R

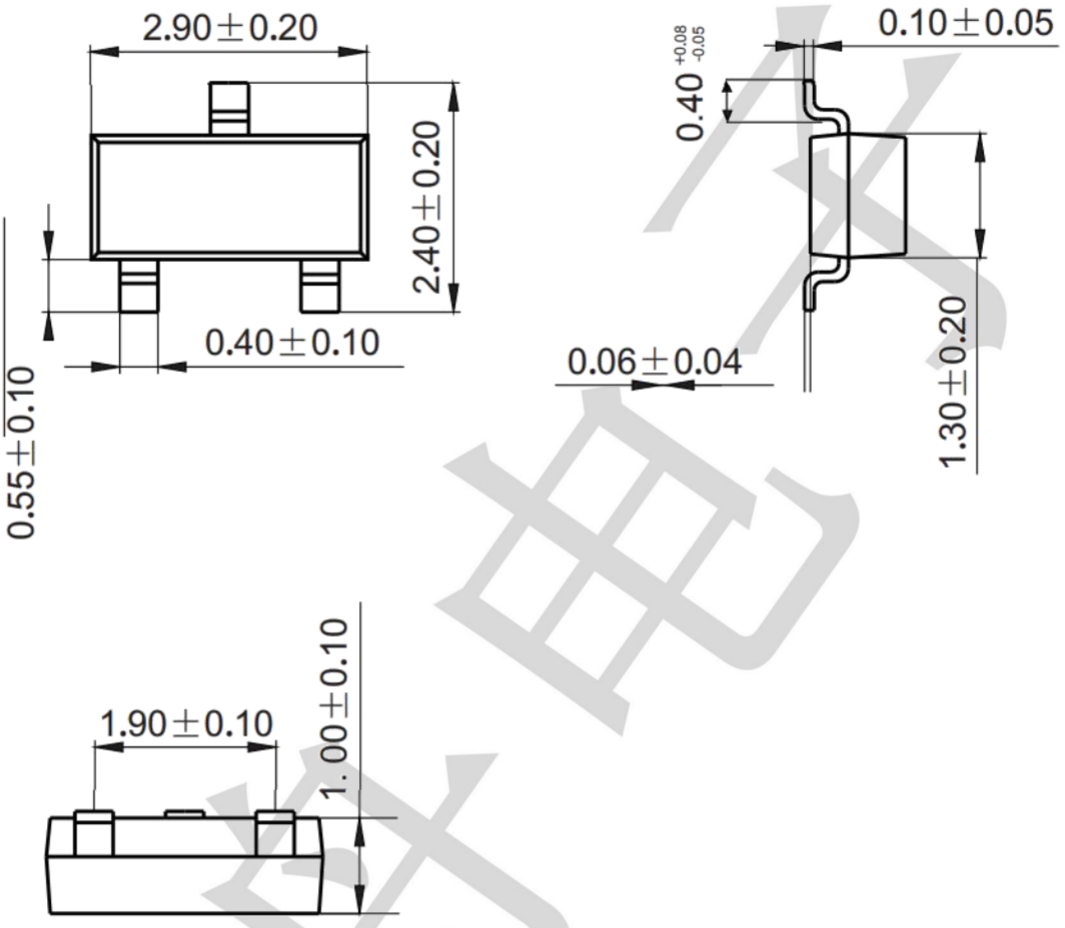


P_D — T_a



Package Outline Dimensions (unit: mm)

SOT-23



Mounting Pad Layout (unit: mm)

