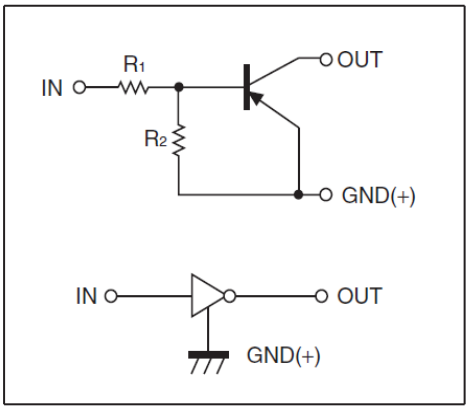
DTA123JM/DTA123JE/DTA123JUA
DTA123JKA/DTA123JCA/DTA123JSA

DIGITAL TRANSISTOR (PNP)

• Equivalent Circuit



FEATURES

- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors(see equivalent circuit)
- The bias resistors consist of thin-film resistors with complete isolation to allow positive biasing of the input.They also have the advantage of almost completely eliminating parasitic effects
- Only the on/off conditions need to be set for operation, making device design easy

Part Number	MARKING(1)	Package	Packing Method	Pack Quantity
DTA123JM	E32	SOT-723	Reel	8000pcs/Reel
DTA123JE	E32	SOT-523	Reel	3000pcs/Reel
DTA123JUA	132	SOT-323	Reel	3000pcs/Reel
DTA123JKA	E32	SOT-23-3L	Reel	3000pcs/Reel
DTA123JCA	E32	SOT-23	Reel	3000pcs/Reel
DTA123JSA	A123 (2) J•XXX	TO-92S	Bulk	1000pcs/Bag
DTA123JSA-TA	A123 (2) J•XXX	TO-92S	Tape	3000pcs/Box

Notes: (1). Solid dot = Green molding compound device, if none, the normal device.
(2). XXX=Code

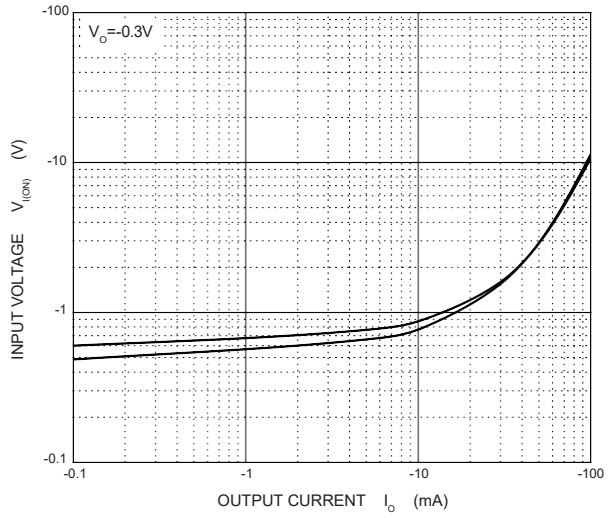
MAXIMUM RATINGS(Ta=25℃ unless otherwise noted)

Symbol	Parameter	Limits(DTA123J)						Unit
		M	E	UA	KA	CA	SA	
V_{CC}	Supply Voltage	-50						V
V_{IN}	Input Voltage	-12～+5						V
I_O	Output Current	-100						mA
P_D	Power Dissipation	100	150	200	200	200	300	mW
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55～+150						℃

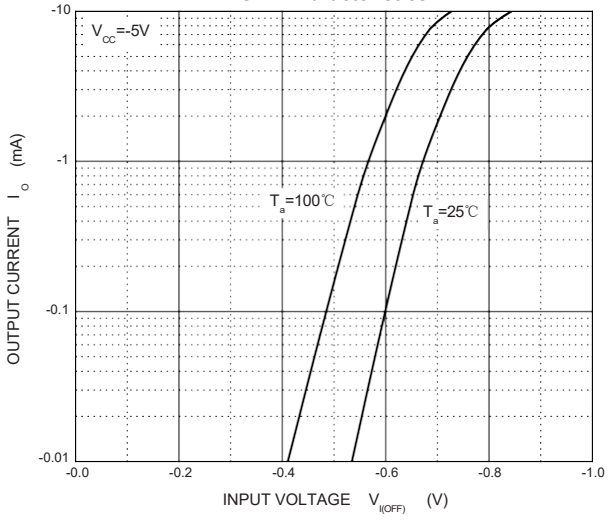
ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	$V_{I(off)}$	V_{CC}=-5V,I_O=-100μA	-0.5			V
	$V_{I(on)}$	V_O=-0.3V,I_O=-5 mA			-1.1	V
Output voltage	$V_{O(on)}$	I_O/I_I=-5mA/-0.25mA		-0.1	-0.3	V
Input current	I_I	V_I=-5V			-3.6	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		1.54	2.2	2.86	kΩ
Resistance ratio	R_2/R_1		17	21	26	
Transition frequency	f_T	V_O=-10V,I_O=-5mA,f=100MHz		250		MHz

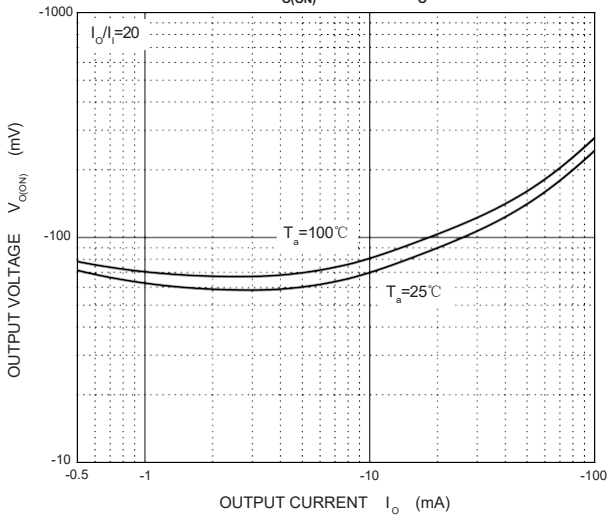
ON Characteristics



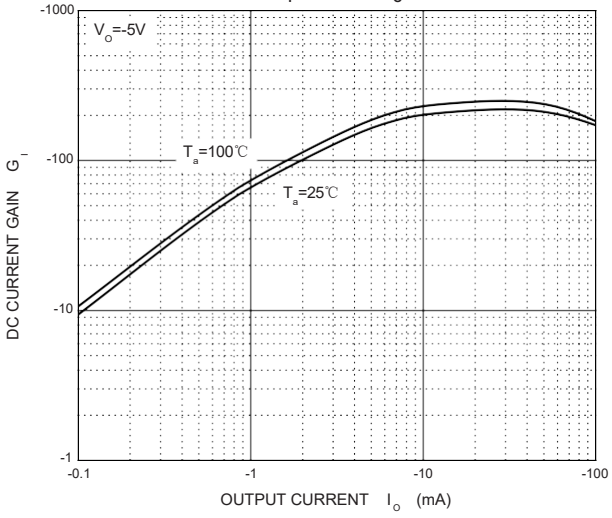
OFF Characteristics



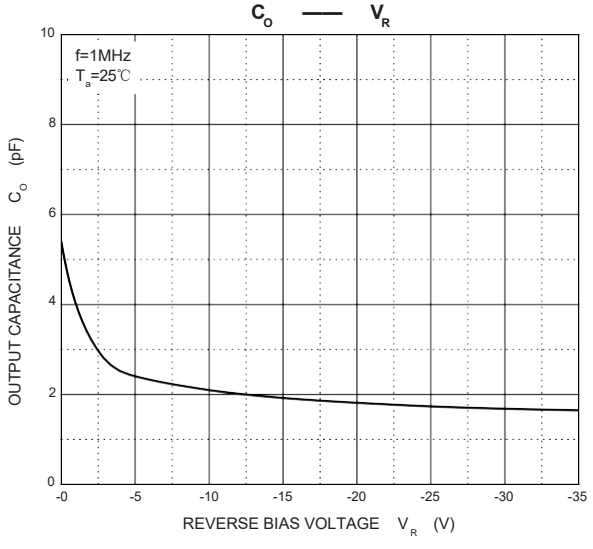
$V_{O(ON)}$ —— I_O



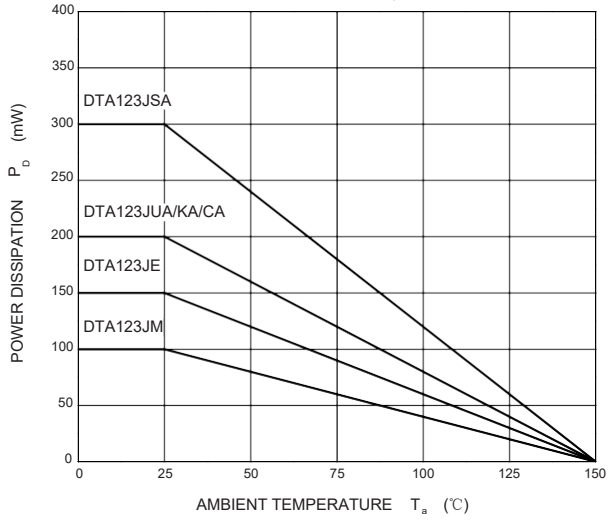
G_I —— I_O



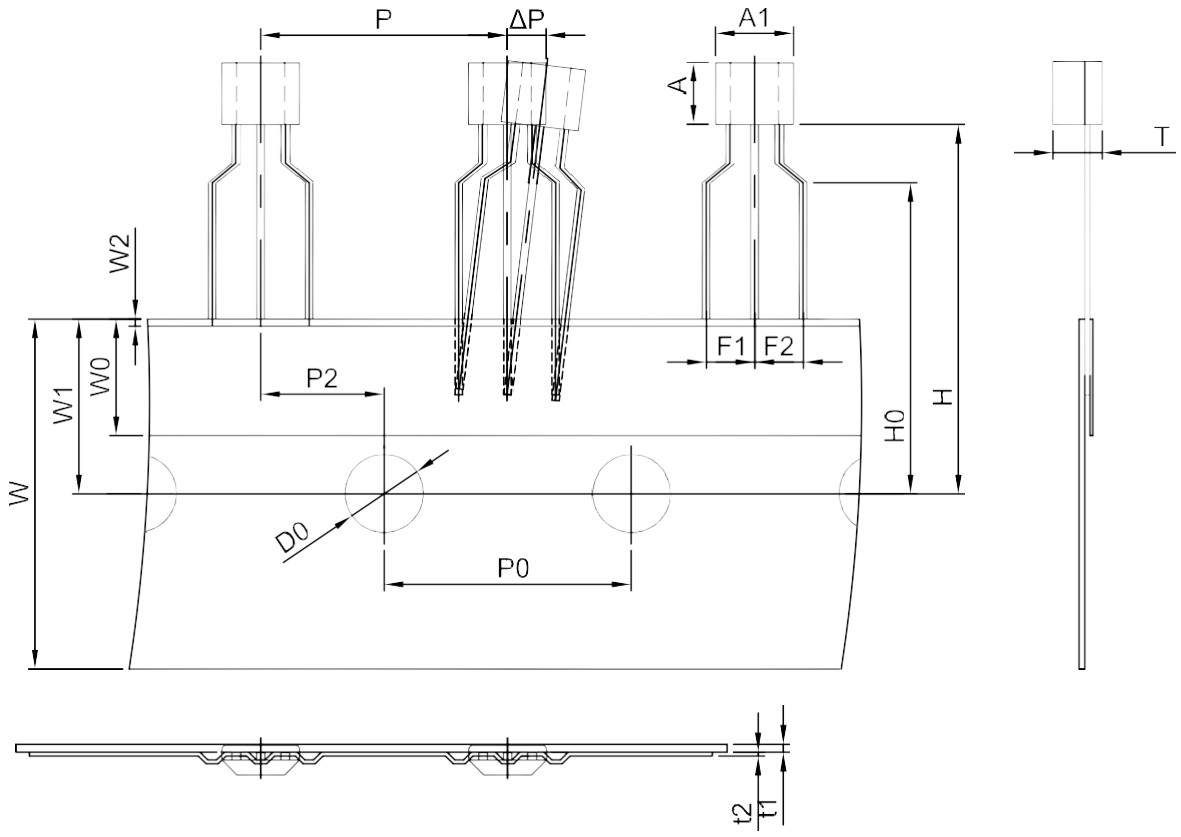
C_O —— V_R



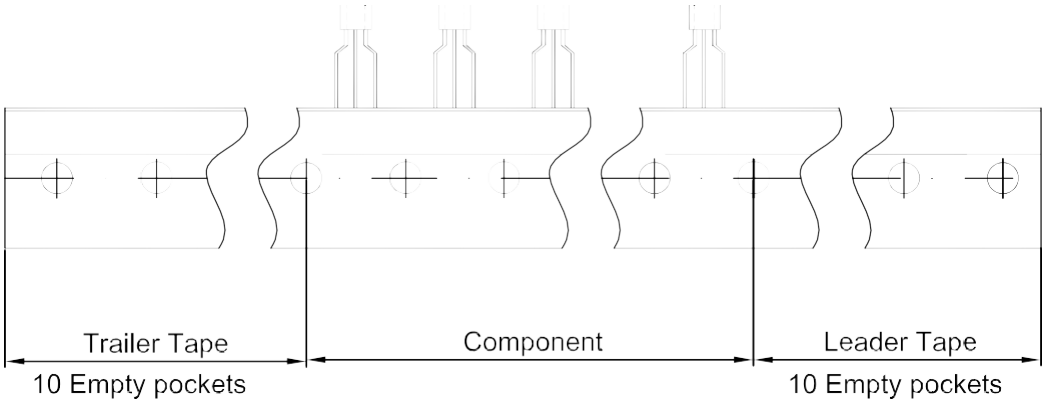
P_D —— T_a



TO-92S PACKAGE TAPING DIMENSION



Dimiensions are in millimeter								
A1	A	T	P	P0	P2	F1	F2	W
4.0	3.15	1.52	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size (mm)	Carton	Carton Size (mm)
TO-92S	3,000 pcs	330×184×40	30,000 pcs	505×405×240