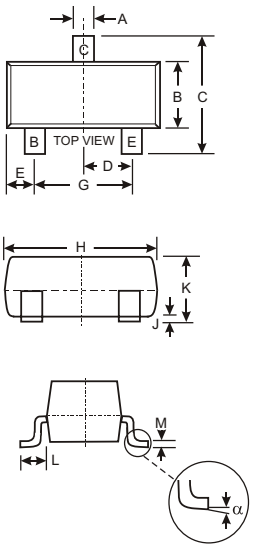
HAICHUANG SEMI

DTA124ECA

PNP SILICON EPITAXIAL PLANAR DIGITAL TRANSISTOR

Features

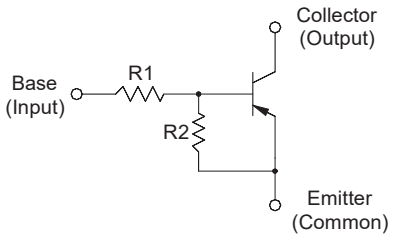
- With built-in bias resistors.
- Simplify circuit design.
- Reduce a quantity of parts and manufacturing process.
- Marking Code:15



SOT-23		
Dim	**Min**	**Max**
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Supply Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	-40～+6	V
Output Current	I_O	-30	V
Peak Collector Current	I_{CM}	-100	mA
Power Dissipation	P_D	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	- 55 to + 150	°C

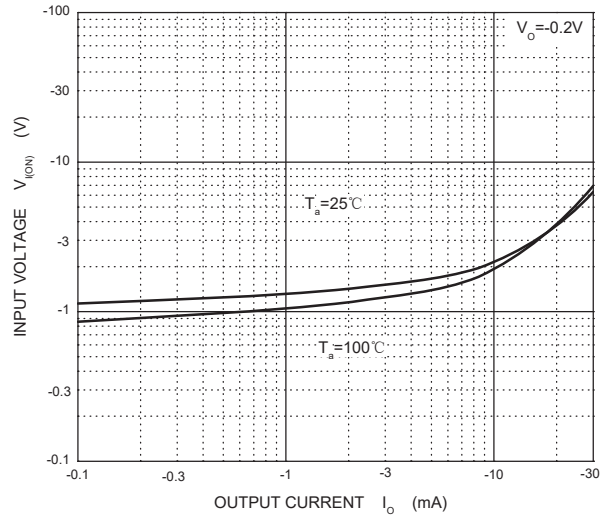


Electrical Characteristics @ T_A = 25°C unless otherwise specified

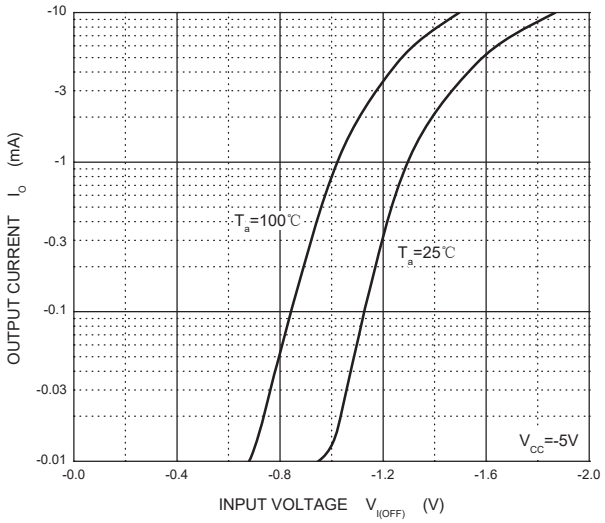
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	$V_{I(off)}$	V_{CC}=-5V,I_O=-100μA	-0.5			V
	$V_{I(on)}$	Vo=-0.2V,Io=-5 mA			-3	V
Output voltage	$V_{O(on)}$	Io/Ii=-10mA/-0.5mA			-0.3	V
Input current	I_I	V_I=-5V			-0.36	mA
Output current	$I_{O(off)}$	V_{CC}=-50V,V_I=0			-0.5	μA
DC current gain	G_I	V_O=-5V,I_O=-5mA	56			
Input resistance	R_1		15.4	22	28.6	kΩ
Resistance ratio	R_2/R_1		0.8	1	1.2	
Transition frequency	f_T	V_O=-10V,I_O=-5mA,f=100MHz		250		MHz

TYPICAL TRANSIENT CHARACTERISTICS

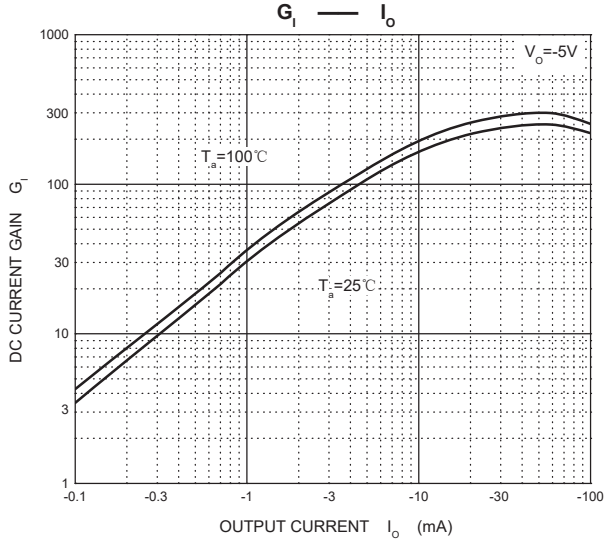
ON Characteristics



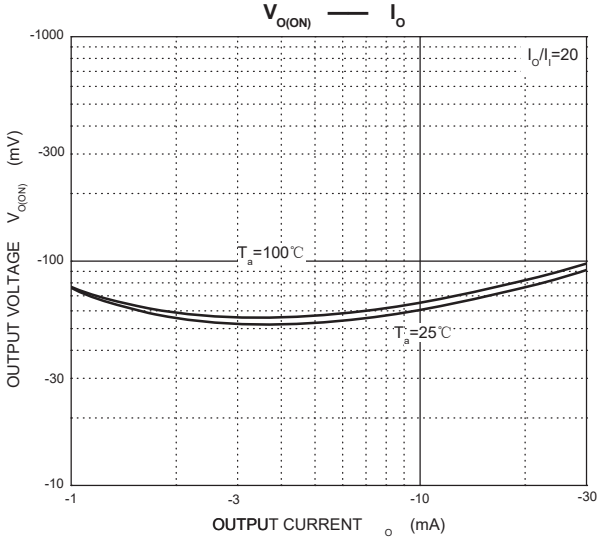
OFF Characteristics



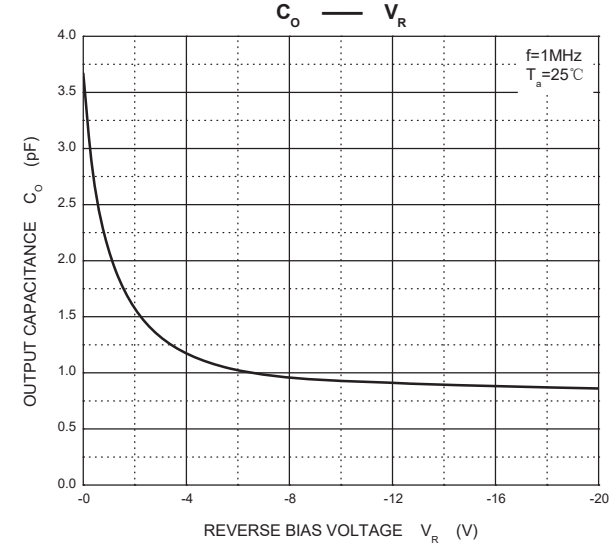
G_I — I_O



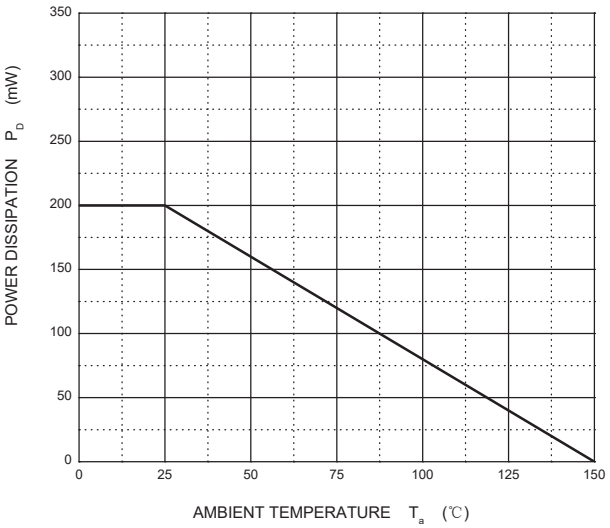
$V_{O(ON)}$ — I_O



C_O — V_R



P_D — T_a



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