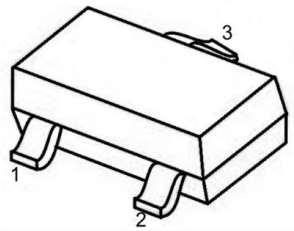
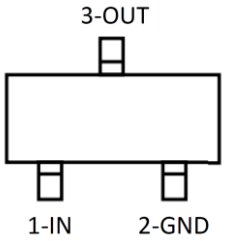
DTA123JCA Digital Transistor(PNP)

SOT-23

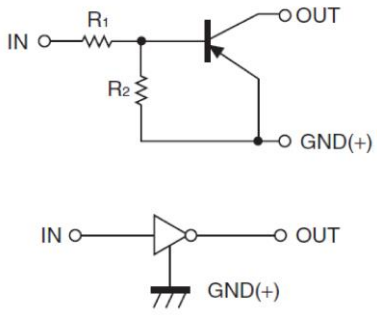




Feature

- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors
- 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

Schematic diagram



Marking: HE32

ABSOLUTE MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

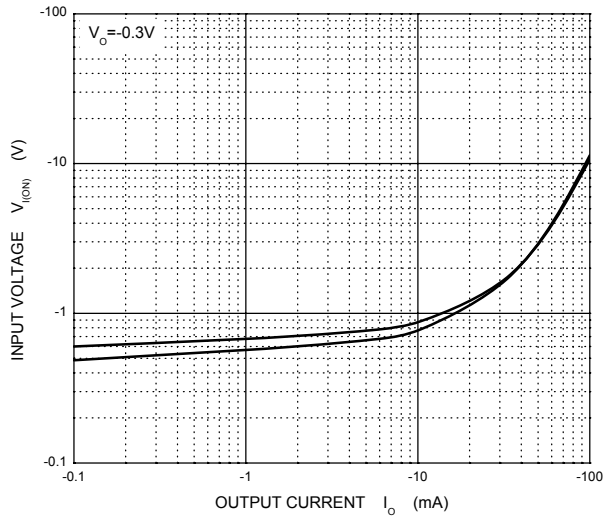
Parameter	Symbol	Value	Unit
Supply Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	-12~+5	V
Output Current	I_O	-100	mA
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	-55 ~ +150	℃
Storage Temperature Range	T_{STG}	-55 ~ +150	℃

ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)

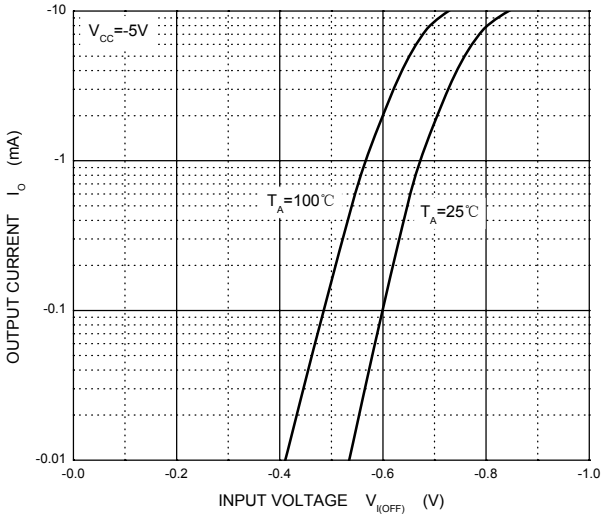
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Input Voltage	$V_{I(off)}$	V_{CC}=-5V , I_O=-100μA	-0.5			V
	$V_{I(on)}$	V_O=-0.3V , I_O=-5mA			-1.1	V
Output Voltage	$V_{O(on)}$	I_O=-5mA ,I_I=-0.25mA			-0.3	V
Input Current	I_I	V_I=-5V			-3.6	mA
Output Current	$I_{O(off)}$	V_{CC}=-50V , V_I=0V			-0.5	μA
DC Current Gain	G_I	V_O=-5V ,I_O =-5mA	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

Typical Characteristics

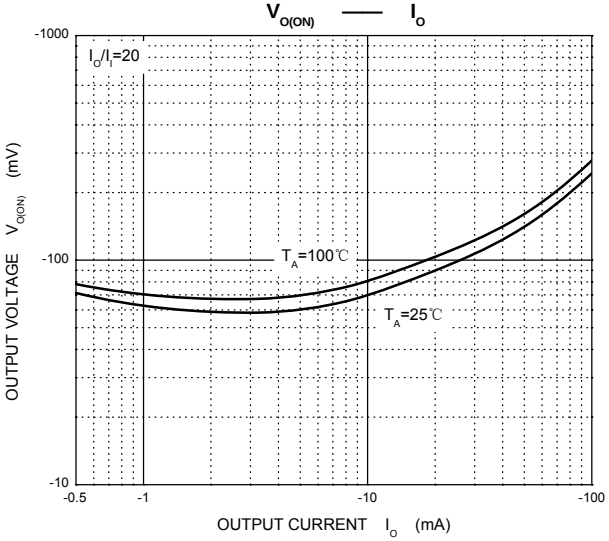
ON Characteristics



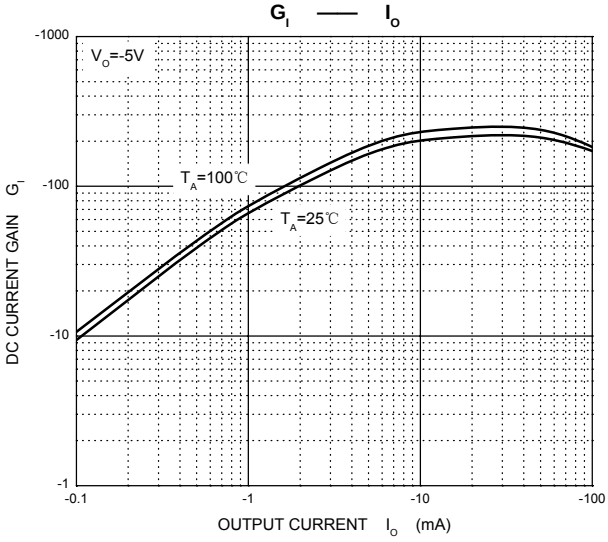
OFF Characteristics



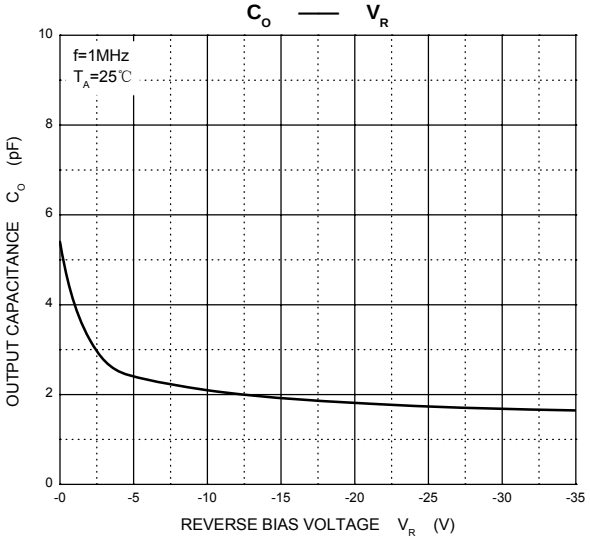
$V_{O(ON)}$ — I_O



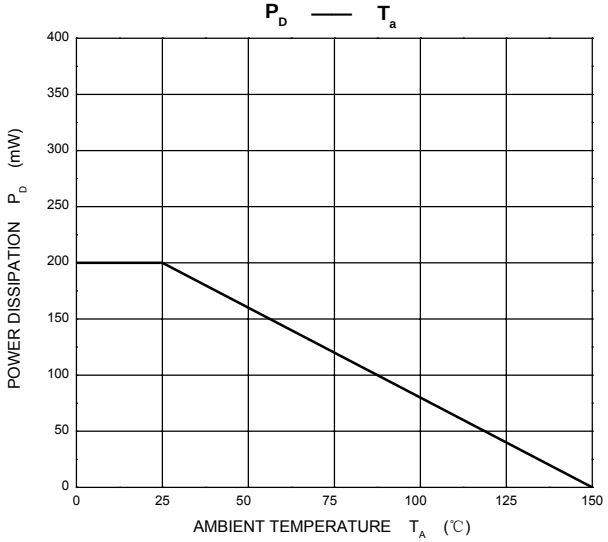
G_I — I_O



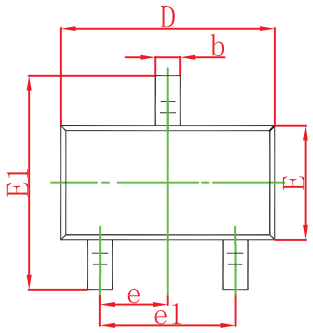
C_O — V_R

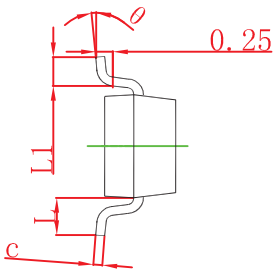


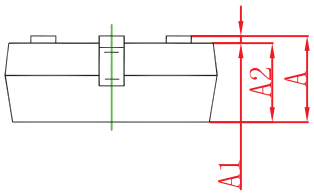
P_D — T_a



SOT-23 Package Information







Symbol	Dimensions In Millimeters	
	Min	Max
A	0.900	1.300
A1	0.000	0.100
A2	0.900	1.200
b	0.300	0.550
c	0.080	0.200
D	2.700	3.100
E	1.150	1.500
E1	2.200	2.700
e	0.950 TYP	
e1	1.700	2.100
L	0.550 REF	
L1	0.200	0.500
θ	0°	8°

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