PNP
Digital Transistor

Features

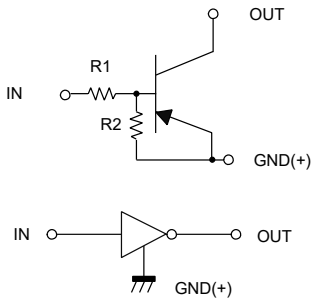
- Built-In Bias Resistors Enable the Configuration of an Inverter Circuit Without Connecting External Input Resistors
- The Bias Resistors Consist of Thin-Film Resistors With Complete Isolation to Allow Negative Biasing of the Input. They Also Have the Advantage of Almost Completely Eliminating Parasitic Effects
- Only the On/Off Conditions Need to Be Set For Operation, Making Device Design Easy
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant.See Ordering Information)

Maximum Ratings @ 25°C Unless Otherwise Noted

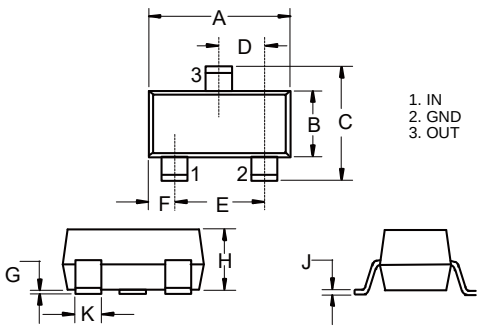
Parameter	Symbol	Min	Typ	Max	Unit
Supply Voltage	V_{CC}	---	-50	---	V
Input Voltage	V_{IN}	-12	---	5	V
Output Current	I_O	---	-100	---	mA
	$I_{C(Max)}$	---	-100	---	mA
Power Dissipation	P_D	---	200	---	mW
Junction Temperature	T_J	---	150	---	°C
Storage Temperature	T_{stg}	-55	---	150	°C

Device Marking：132

Internal Structure

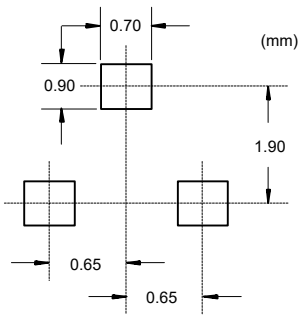


SOT-323



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026		0.65		TYP.
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.044	0.90	1.10	
J	0.002	0.010	0.05	0.25	
K	0.006	0.016	0.15	0.40	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Input Voltage	$V_{I(off)}$	-0.5	---	---	V	V_{CC}=-5V, I_O=-100μA
	$V_{I(on)}$	---	---	-1.1	V	V_O=-0.3V, I_O=-5mA
Output Voltage	$V_{O(on)}$	---	---	-0.3	V	I_O=-5mA,I_I=-0.25mA
Input Current	I_I	---	---	-3.6	mA	V_I=-5V
Output Current	$I_{O(off)}$	---	---	-0.5	μA	V_{CC}=-50V, V_I=0
DC Current Gain	G_I	80	---	---		V_O=-5V, I_O=-10mA
Input Resistance	R_1	1.54	2.2	2.86	KΩ	
Resistance Ratio	R_2/R_1	17	21	26		
Transition Frequency	f_T	---	250	---	MHz	V_{CE}=-10V, I_E=5mA, f=100MHz

Curve Characteristics

Fig. 1 - DC Current Gain Characteristics

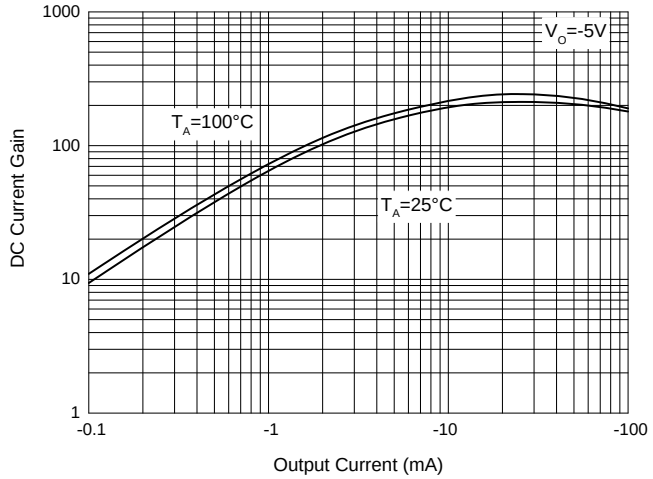


Fig. 2 - Input Voltage (on) Characteristics

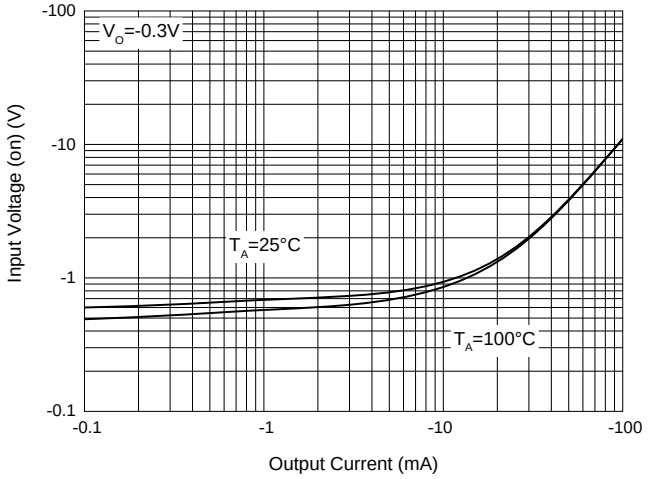


Fig. 3 - Input Voltage (off) Characteristics

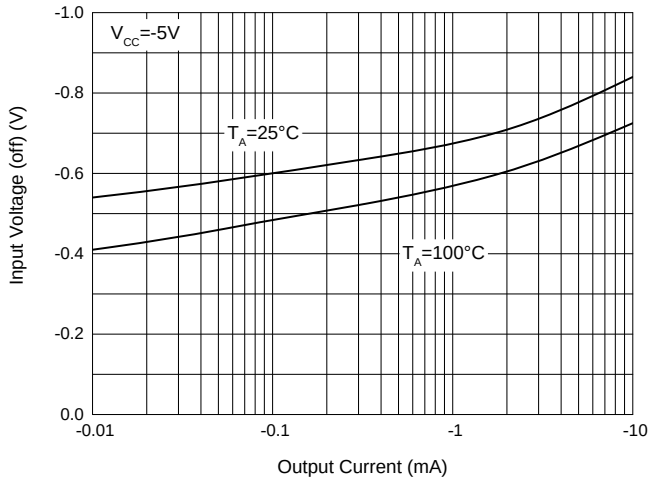


Fig. 4 - Output Voltage Characteristics

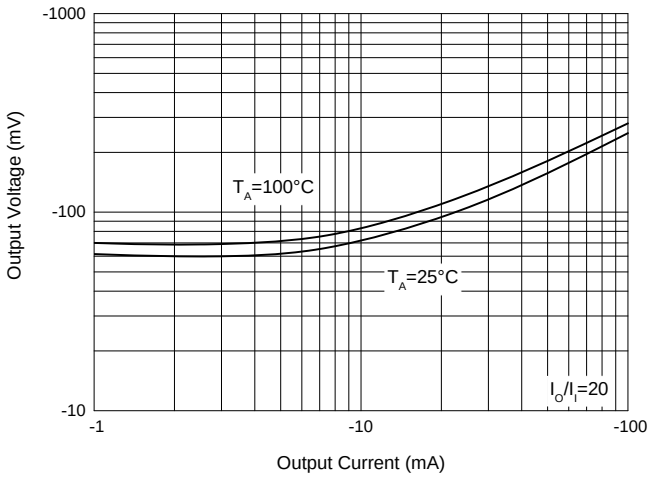
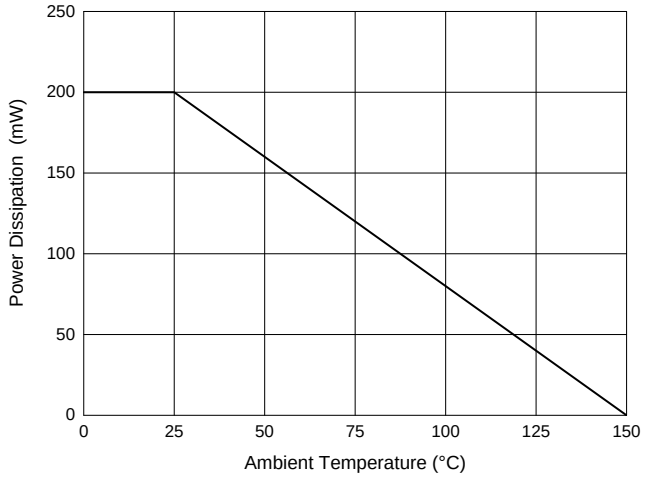


Fig. 5 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF