

## Features

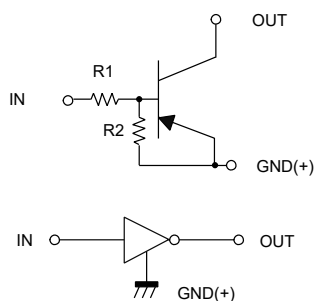
- Built-In Bias Resistors Enable the Configuration of an Inverter Circuit without Connecting External Input Resistors
- The Bias Resistors Consist of Thin-Film Resistors with Complete Isolation to Allow Negative Biasing of the Input. They Also Have the Advantage of Almost Completely Eliminating Parasitic Effects
- Only the On/Off Conditions Need to Be Set for Operation, Making Device Design Easy
- Halogen Free. "Green" Device (Note 1)
- 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	$V_{IN}$	-10		5	V
Output Current	$I_O$			-100	mA
Power Dissipation	$P_D$			200	mW
Junction Temperature	$T_J$	-55		150	°C
Storage Temperature	$T_{stg}$	-55		150	°C

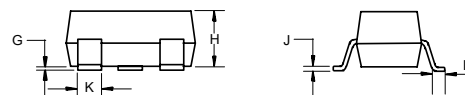
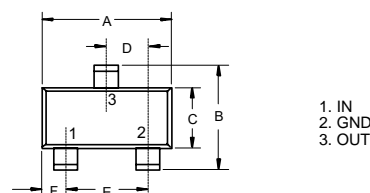
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

## Internal Structure



# PNP Digital Transistors

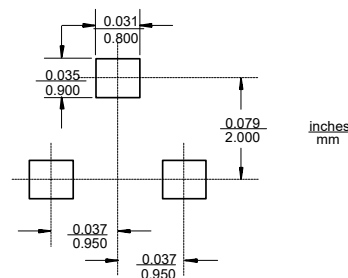
## SOT-23



## DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.012	0.020	0.30	0.51	
L	0.007	0.020	0.20	0.50	

## Suggested Solder Pad Layout



**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Collector-Emitter Cutoff Current	$I_{CEO}$			-500	nA	$V_{CE}=-50V, I_B=0$
Collector-Base Cutoff Current	$I_{CBO}$			-100	nA	$V_{CB}=-50V, I_E=0$
Emitter-Base Cutoff Current	$I_{EBO}$		-1400	-2500	$\mu A$	$V_{BE}=-6V, I_C=0$
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	-50			V	$I_C=-2mA, I_B=0$
Collector-Base Breakdown Voltage	$BV_{CBO}$	-50			V	$I_C=-100\mu A, I_E=0$
Emitter-Base Breakdown Voltage	$BV_{EBO}$	-6			V	$I_E=-2mA, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.1	-0.25	V	$I_C=-10mA, I_B=-5mA$
Input Resistance	$R_1$	1.5	2.2	2.9	K $\Omega$	
Resistance ratio	$R_1/R_2$	0.8	1	1.2		
DC Current Gain	$h_{FE}$	30				$V_{CE}=-10V, I_C=-20mA$

## Curve Characteristics

Fig. 1 - DC Current Gain Characteristics

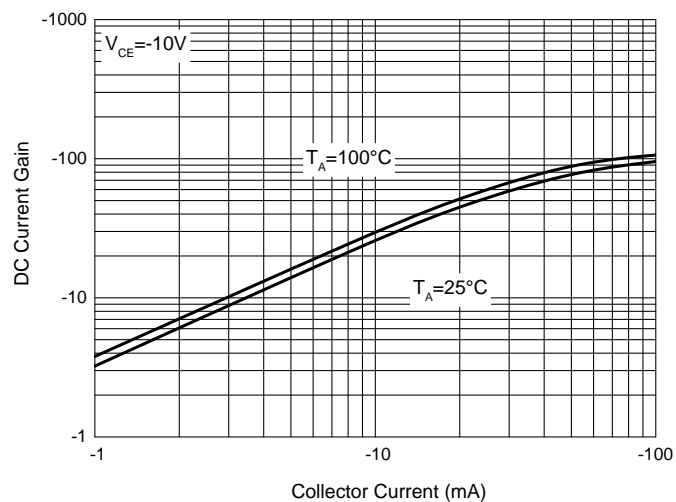


Fig. 2 - Collector-Emitter Saturation Voltage Characteristics

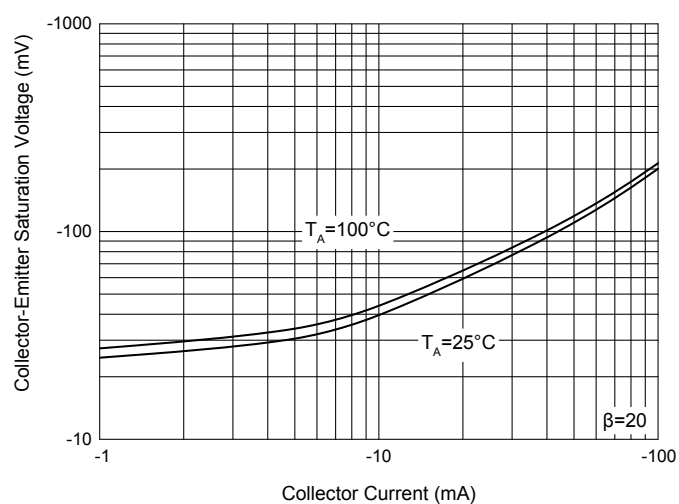
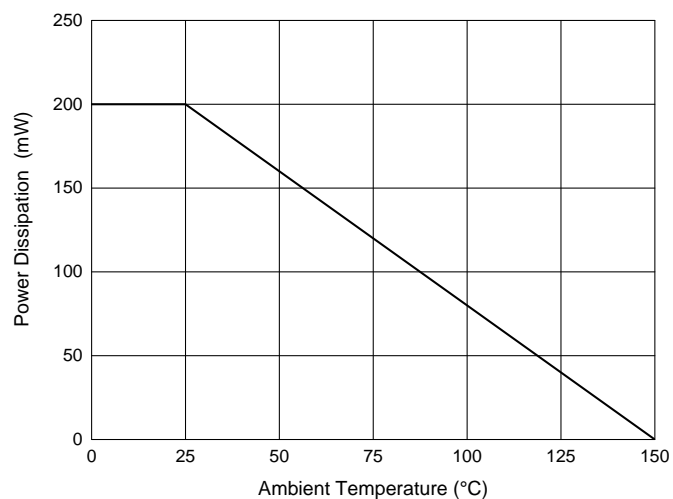


Fig. 3 - Power Derating Curve



## Ordering Information

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

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