

**Features**

- Built-In Bias Resistors Enable the Configuration of an Inverter Circuit Without Connecting External Input Resistors
- 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 Specified**

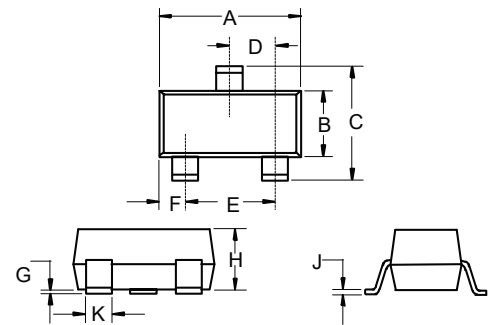
- Thermal Resistance: 833°C/W Junction to Ambient

Parameter	Symbol	Value	Unit
Supply Voltage	$V_{CC}$	-50	V
Input Voltage	$V_{IN}$	-10~+5	V
Output Current	$I_O$	-100	mA
Power Dissipation	$P_D$	150	mW
Junction Temperature	$T_J$	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.

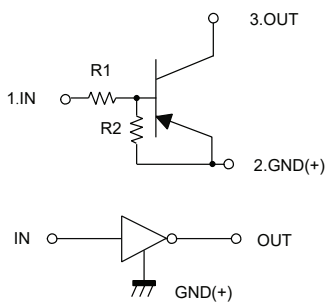
**PNP  
Digital Transistor**

**SOT-523**

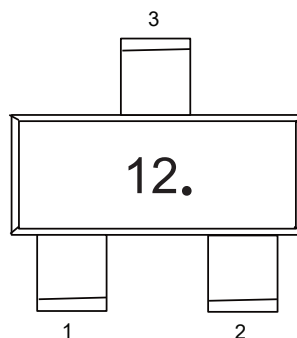


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.059	0.067	1.50	1.70	
B	0.030	0.033	0.75	0.85	
C	0.057	0.069	1.45	1.75	
D	0.020		0.50		TYP.
E	0.035	0.043	0.90	1.10	
G	0.000	0.004	0.00	0.10	
H	0.024	0.031	0.60	0.80	
J	0.004	0.008	0.10	0.20	
K	0.006	0.014	0.15	0.35	

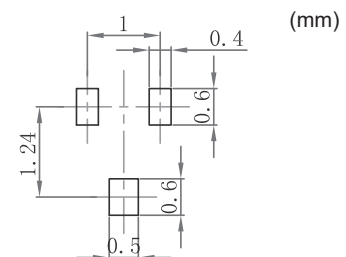
**Internal Structure**



**Device Marking**



**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	$V_{CC}=-5V, I_O=-100\mu A$
	$V_{I(on)}$	---	---	-3.0	V	$V_O=-0.3V, I_O=-20mA$
Output Voltage	$V_{O(on)}$	---	---	-0.3	V	$I_O=-10mA, I_I=-0.5mA$
Input Current	$I_I$	---	---	-3.8	mA	$V_I=-5V$
Output Current	$I_{O(off)}$	---	---	-0.5	$\mu A$	$V_{CC}=-50V, V_I=0$
DC Current Gain	$G_1$	20	---	---		$V_O=-5V, I_O=-20mA$
Input Resistance	$R_1$	1.54	2.2	2.86	K $\Omega$	
Resistance Ratio	$R_2/R_1$	0.8	1.0	1.2		

**Curve Characteristics**

Fig. 1 - DC Current Gain Characteristics

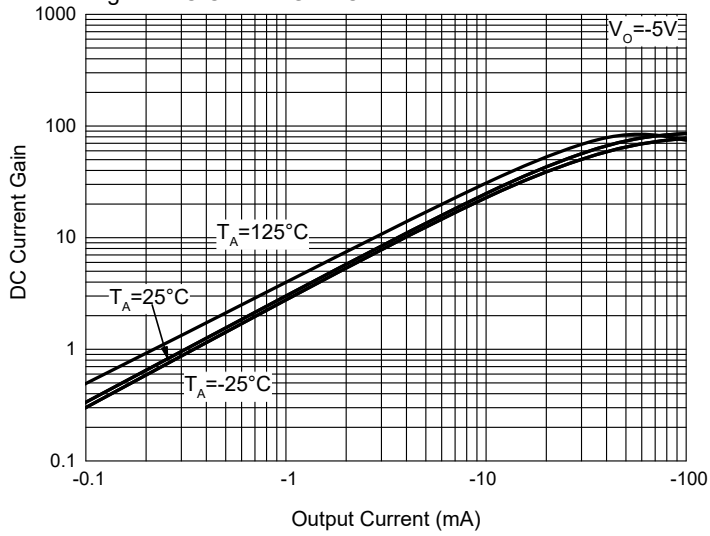


Fig. 2 - Input Voltage (on) Characteristics

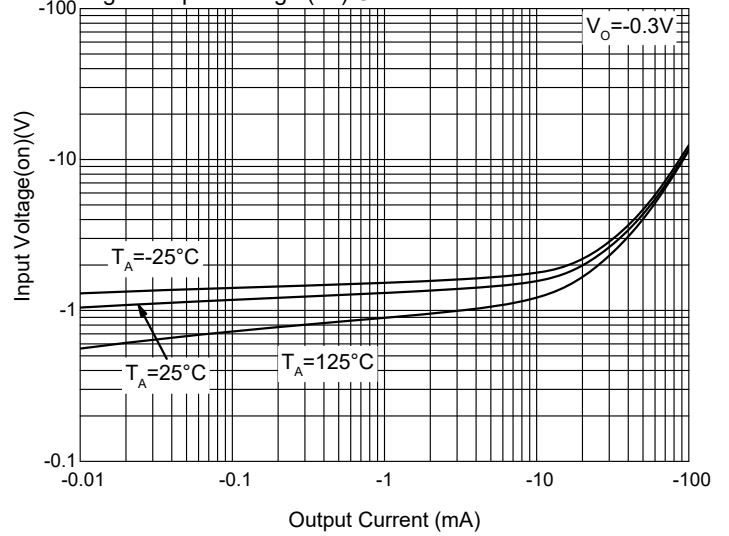


Fig. 3 - Input Voltage (off) Characteristics

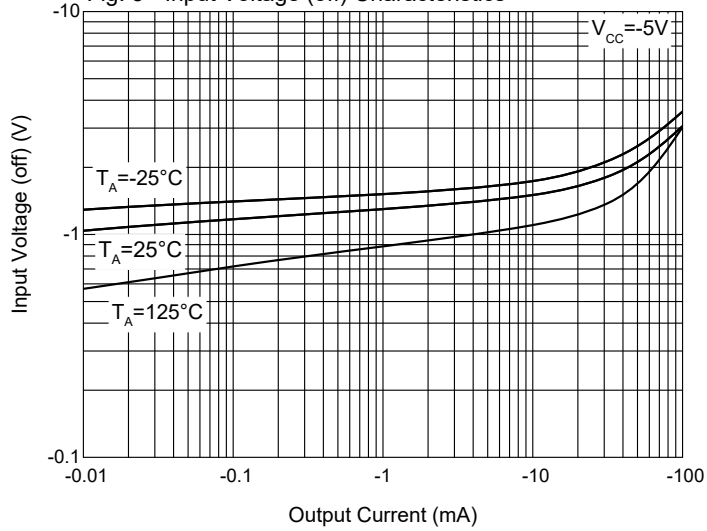


Fig. 4 - Output Voltage Characteristics

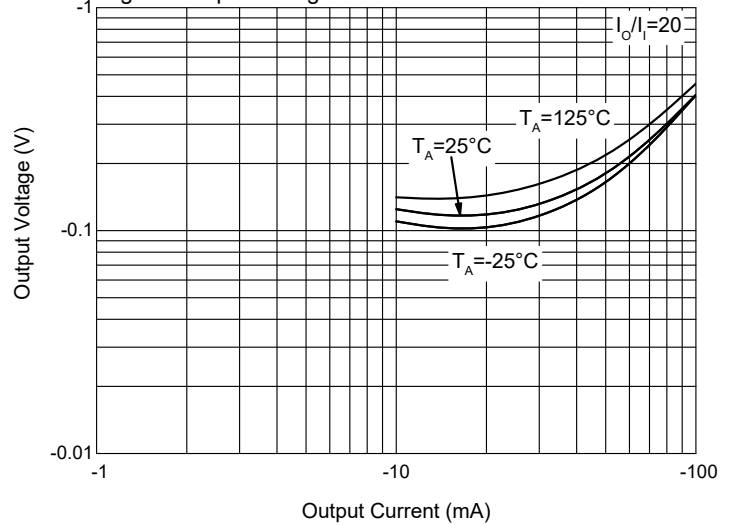
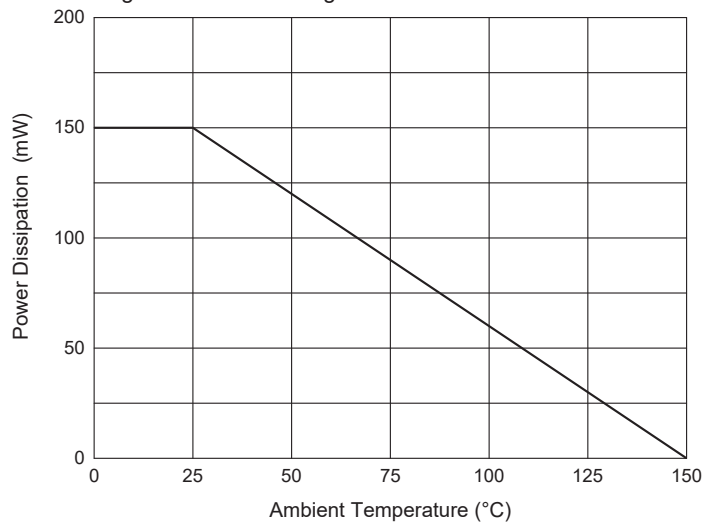


Fig. 5 - Power Derating Curve



## Ordering Information

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

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