

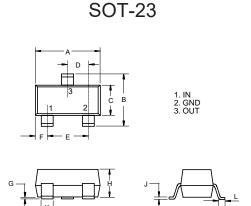
# Features

- Epitaxial Planar Die Construction
- Built-In Biasing 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

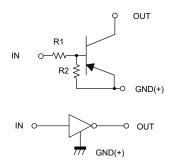
Parameter	Symbol	Min	Тур	Max	Unit
Supply Voltage	V <sub>cc</sub>		-50		V
Input Voltage	V <sub>IN</sub>	-12		+5	V
Output Current	I <sub>o</sub>		-100		mA
Power Dissipation	P <sub>D</sub>		200		mW
Junction Temperature	TJ			150	°C
Storage Temperature	T <sub>stg</sub>	-55		150	°C



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

## Device Marking: 52

### Internal Structure



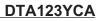
DIM	INCHES		M	М	NOTE	
Divi	MIN	MAX	MIN	MAX	NOTE	
Α	0.110	0.120	2.80	3.04		
В	0.083	0.104	2.10	2.64		
С	0.047	0.055	1.20	1.40		
D	0.034	0.041	0.85	1.05		
E	0.067	0.083	1.70	2.10		
F	0.018	0.024	0.45	0.60		
G	0.0004	0.006	0.01	0.15		
Н	0.035	0.043	0.90	1.10		
J	0.003	0.007	0.08	0.18		
K	0.012	0.020	0.30	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	Тур	Max	Unit	Conditions
Input Voltage	V <sub>I(off)</sub>	-0.3			V	V <sub>cc</sub> =-5V, Ι <sub>o</sub> =-100μA
Input Voltage	V <sub>I(on)</sub>			-3.0	V	V <sub>o</sub> =-0.3V, I <sub>o</sub> =-20mA
Output Voltage	V <sub>O(on)</sub>			-0.3	V	I <sub>o</sub> =-10mA,I <sub>I</sub> =-0.5mA
Input Current	l <sub>i</sub>			-3.8	mA	V <sub>I</sub> =-5V
Output Current	I <sub>O(off)</sub>			-0.5	μA	V <sub>CC</sub> =-50V, V <sub>I</sub> =0
DC Current Gain	Gı	33				V <sub>o</sub> =-5V, I <sub>o</sub> =-10mA
Input Resistance	R <sub>1</sub>	1.54	2.2	2.86	KΩ	
Resistance Ratio	$R_2/R_1$	3.6	4.5	5.5		
Transition Frequency	f <sub>T</sub>		250		MHz	V <sub>CE</sub> =-10V, I <sub>E</sub> =5mA, f=100MHz





# **Curve Characteristics**

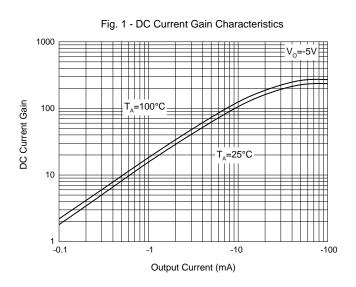
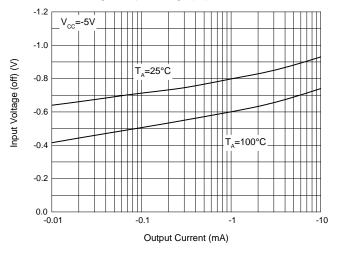


Fig. 3 - Input Voltage (off) Characteristics





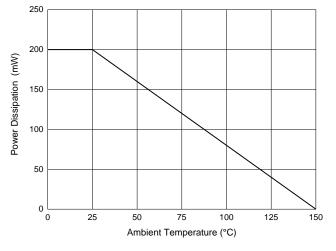


Fig. 2 - Input Voltage (on) Characteristics

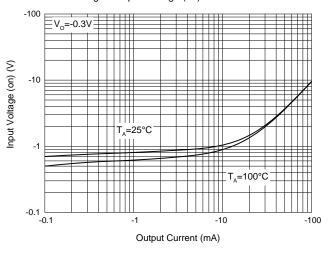
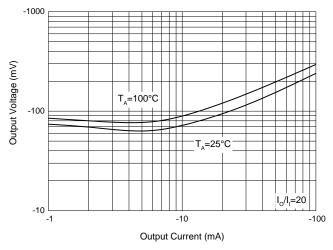


Fig. 4 - Output Voltage Characteristics





# **Ordering Information**

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

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