

Features

- **Pb-Free package is available**
RoHS product for packing code suffix "G"
Halogen free product for packing code suffix "H"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- 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

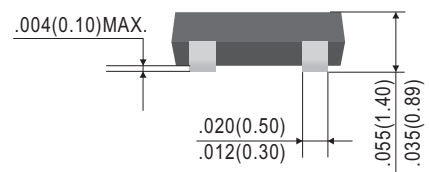
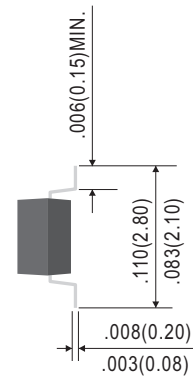
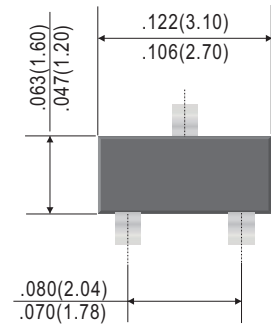
Absolute maximum ratings @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V _{CC}	Supply voltage	---	-50	---	V
V _{IN}	Input voltage	-40	---	10	V
I _O I _{C(MAX)}	Output current	---	-30 -100	---	mA
P _d	Power dissipation	---	200	---	mW
T _j	Junction temperature	---	150	---	°C
T _{stg}	Storage temperature	-55	---	150	°C

Electrical Characteristics @ 25°C

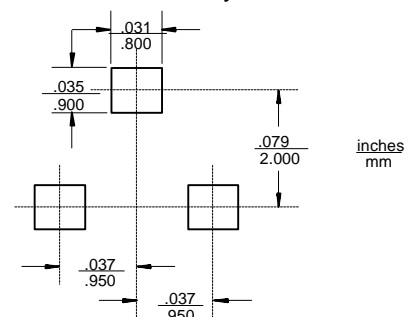
Symbol	Parameter	Min	Typ	Max	Unit
V _{I(off)}	Input voltage (V _{CC} =-5V, I _O =-100 μA)	-0.5	---	---	V
V _{I(on)}	Input voltage (V _O =-0.3V, I _O =-2mA)	---	---	-3.0	V
V _{O(on)}	Output voltage (I _O /I _I =-10mA/-0.5mA)	---	---	-0.3	V
I _I	Input current (V _I =-5V)	---	---	-0.18	mA
I _{O(off)}	Output current (V _{CC} =-50V, V _I =0)	---	---	-0.5	μA
G _I	DC current gain (V _O =-5V, I _O =-5mA)	68	---	---	
R ₁	Input resistance	32.9	47	61.1	KΩ
R ₂ /R ₁	Resistance ratio	0.8	1.0	1.2	
f _T	Transition frequency (V _O =-10V, I _O =5mA, f=100MHz)	---	250	---	MHz

SOT-23

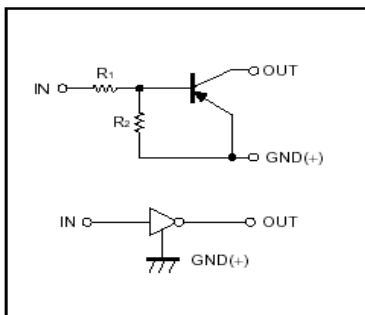


Dimensions in inches and (millimeters)

Suggested Solder Pad Layout



Equivalent circuit



*Marking: 16

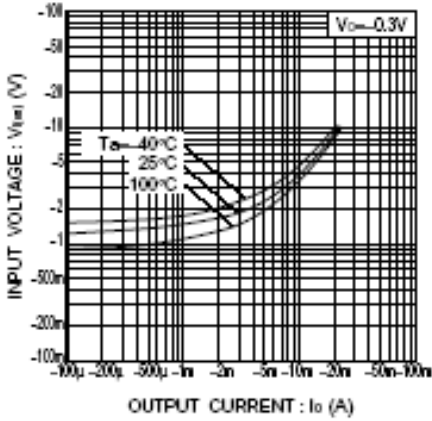


Fig.1 Input voltage vs. output current (ON characteristics)

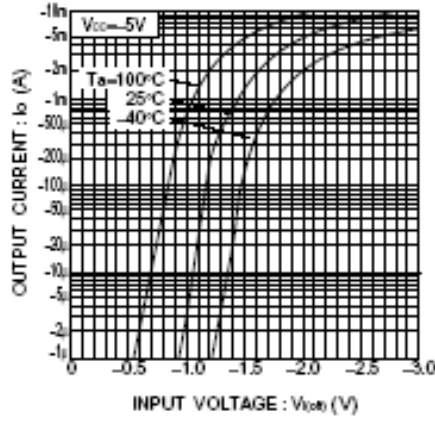


Fig.2 Output current vs. input voltage (OFF characteristics)

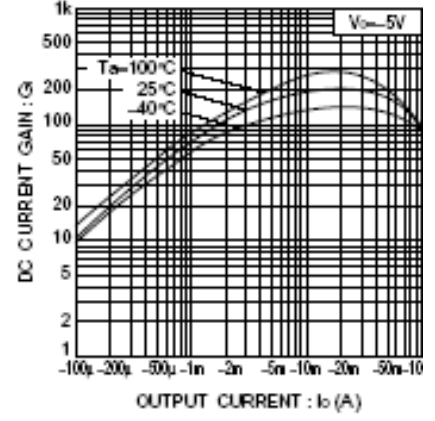


Fig.3 DC current gain vs. output current

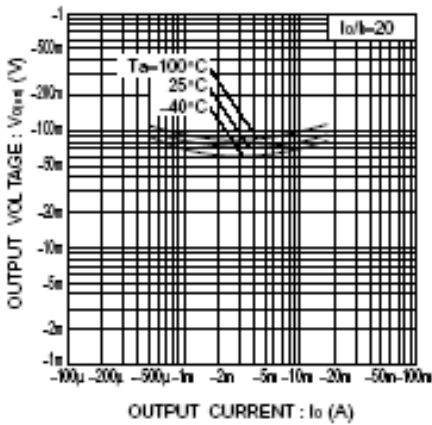


Fig.4 Output voltage vs. output current