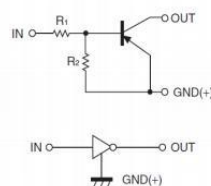


### FEATURES

- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors
- Surface mount package ideally Suited for Automatic Insertion

### Equivalent Circuit



### SOT-323



### MARKING:132

1. IN 2. GND 3. OUT

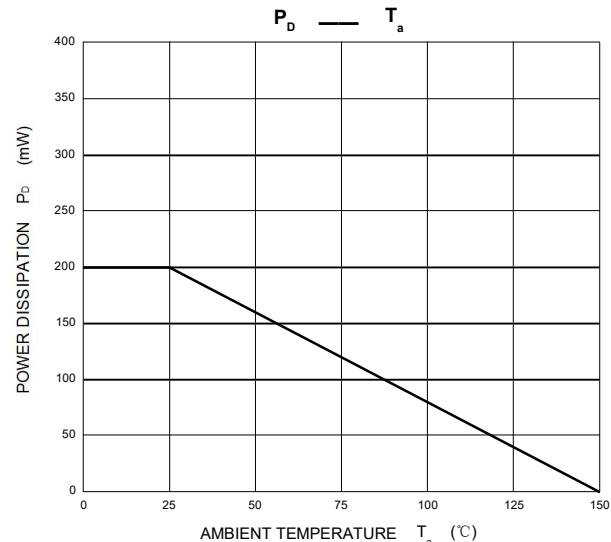
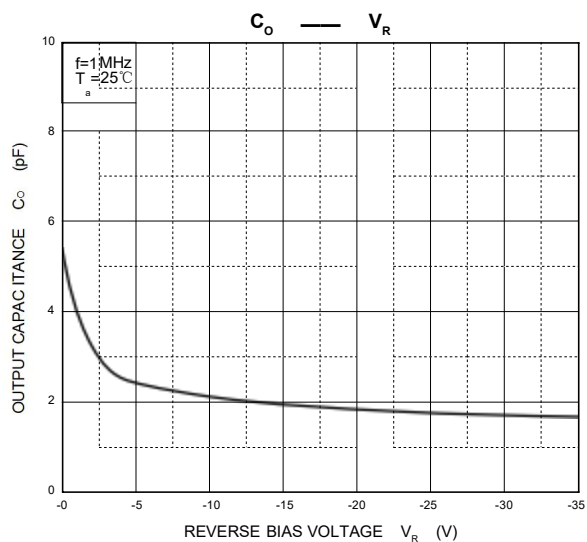
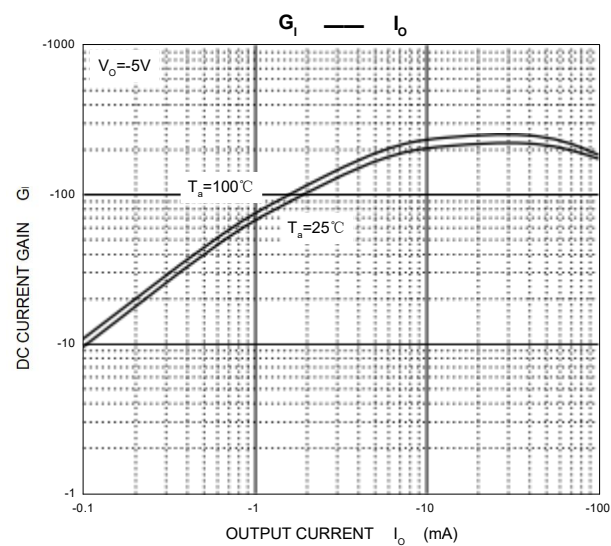
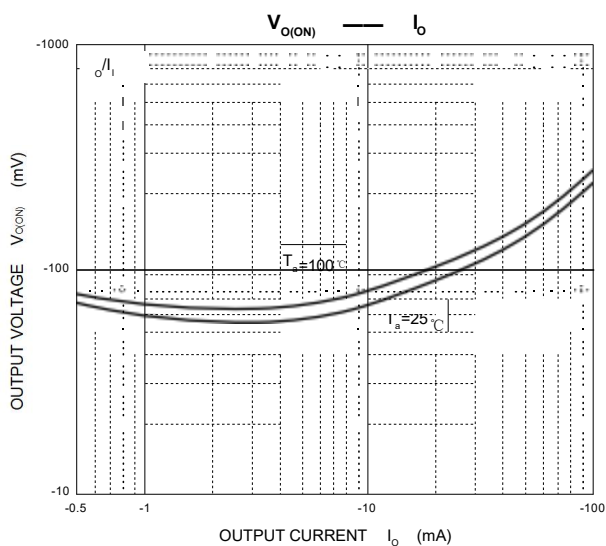
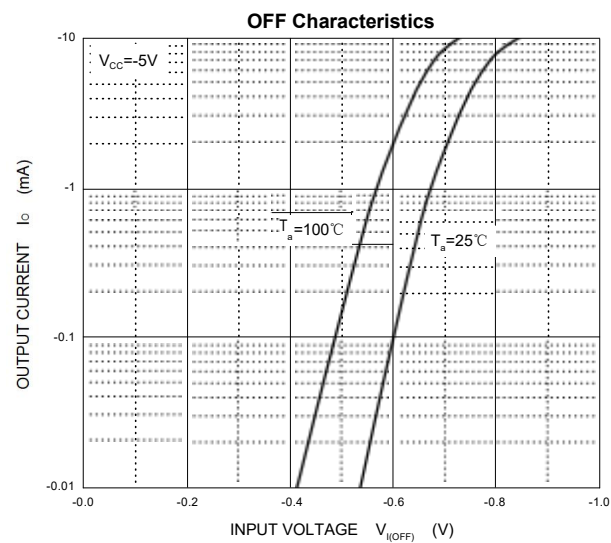
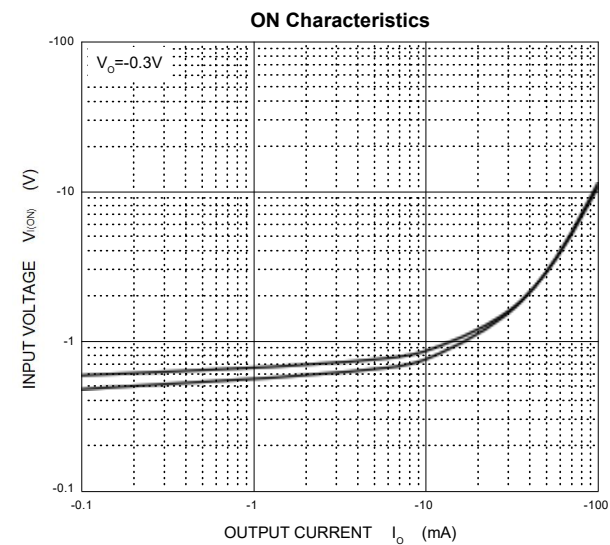
### MAXIMUM RATINGS(Ta=25℃ unless otherwise noted)

| Symbol         | Parameter                                        | Limits   | Unit |
|----------------|--------------------------------------------------|----------|------|
| $V_{CC}$       | Supply Voltage                                   | -50      | V    |
| $V_{IN}$       | Input Voltage                                    | -12~+5   | V    |
| $I_O$          | Output Current                                   | -100     | mA   |
| $P_D$          | Power Dissipation                                | 200      | mW   |
| $T_J, T_{stg}$ | Operation Junction and Storage Temperature Range | -55~+150 | ℃    |

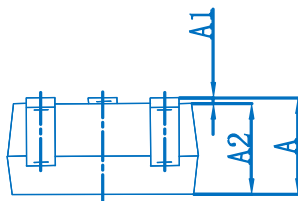
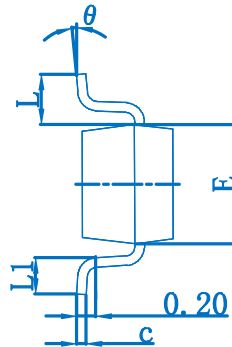
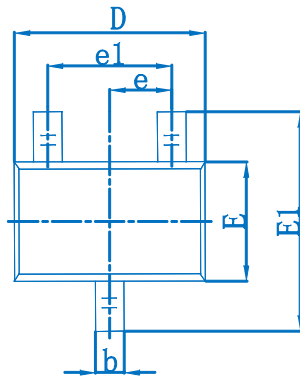
### ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

| Parameter            | Symbol       | Conditions                     | Min  | Typ  | Max  | Unit       |
|----------------------|--------------|--------------------------------|------|------|------|------------|
| Input voltage        | $V_{I(off)}$ | $V_{CC}=-5V, I_O=-100\mu A$    | -0.5 |      |      | V          |
|                      | $V_{I(on)}$  | $V_O=-0.3V, I_O=-5mA$          |      |      | -1.1 | V          |
| Output voltage       | $V_{O(on)}$  | $I_O/I_I=-5mA/-0.25mA$         |      | -0.1 | -0.3 | V          |
| Input current        | $I_I$        | $V_I=-5V$                      |      |      | -3.6 | mA         |
| Output current       | $I_{O(off)}$ | $V_{CC}=-50V, V_I=0$           |      |      | -0.5 | $\mu A$    |
| DC current gain      | $G_I$        | $V_O=-5V, I_O=-10mA$           | 80   |      |      |            |
| Input resistance     | $R_1$        |                                | 1.54 | 2.2  | 2.86 | k $\Omega$ |
| Resistance ratio     | $R_2/R_1$    |                                | 17   | 21   | 26   |            |
| Transition frequency | $f_T$        | $V_O=-10V, I_O=-5mA, f=100MHz$ |      | 250  |      | MHz        |

# Typical Characteristics

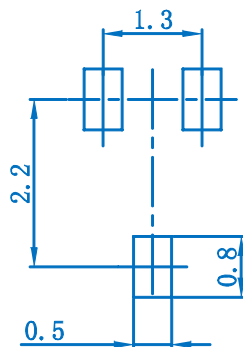


## SOT-323 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.900                     | 1.100 | 0.035                | 0.043 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.900                     | 1.000 | 0.035                | 0.039 |
| b      | 0.200                     | 0.400 | 0.008                | 0.016 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 2.000                     | 2.200 | 0.079                | 0.087 |
| E      | 1.150                     | 1.350 | 0.045                | 0.053 |
| E1     | 2.150                     | 2.450 | 0.085                | 0.096 |
| e      | 0.650 TYP                 |       | 0.026 TYP            |       |
| e1     | 1.200                     | 1.400 | 0.047                | 0.055 |
| L      | 0.525 REF                 |       | 0.021 REF            |       |
| L1     | 0.260                     | 0.460 | 0.010                | 0.018 |
| theta  | 0°                        | 8°    | 0°                   | 8°    |

## SOT-323 Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.