23 Silicon NPN Digital transistor in a SOT-23 Plastic Package.
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With built-in bias resistors, simplify circuit design, reduce a quantity of parts and manufacturing procesa

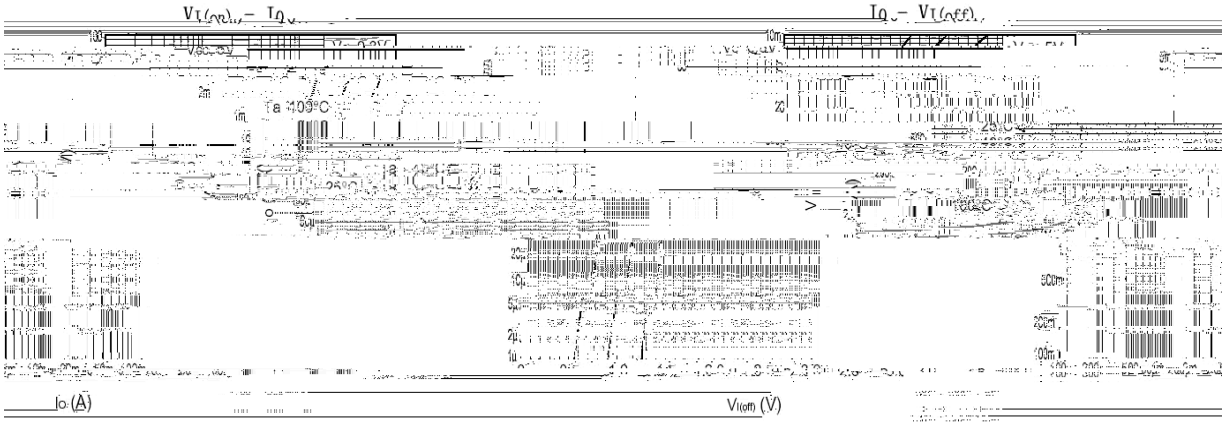
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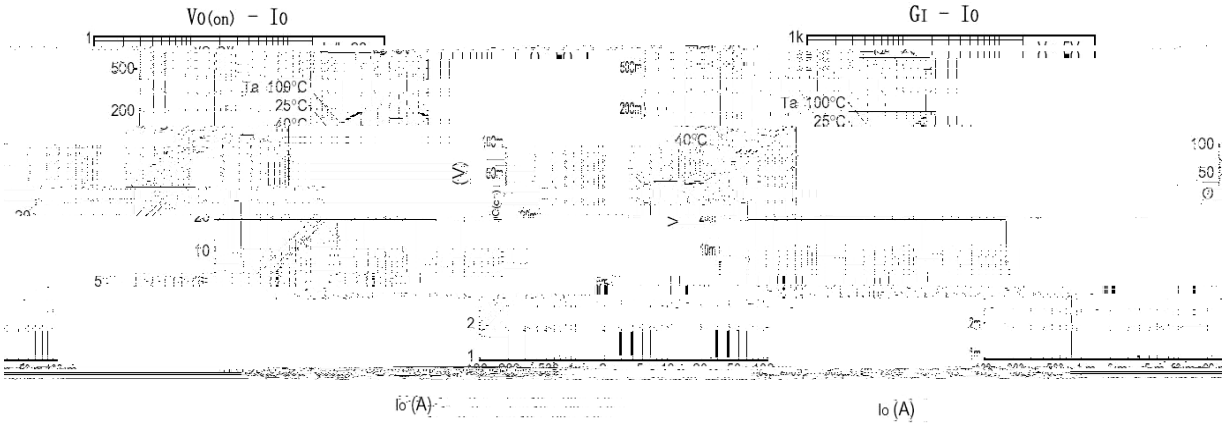
| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Output Voltage | $V_{CC}$ | 50 | V |
| Input Voltage | $V_{IN}$ | 40 | V |
| | | -10 | V |
| Output Current | $I_{CM}$ | 100 | mA |
| | $I_O$ | 50 | mA |
| Collector Dissipation | $P_C$ | 200 | mW |
| Junction Temperature | $T_j$ | 150 | ℃ |
| Storage Temperature Range | $T_{stg}$ | -55 150 | ℃ |

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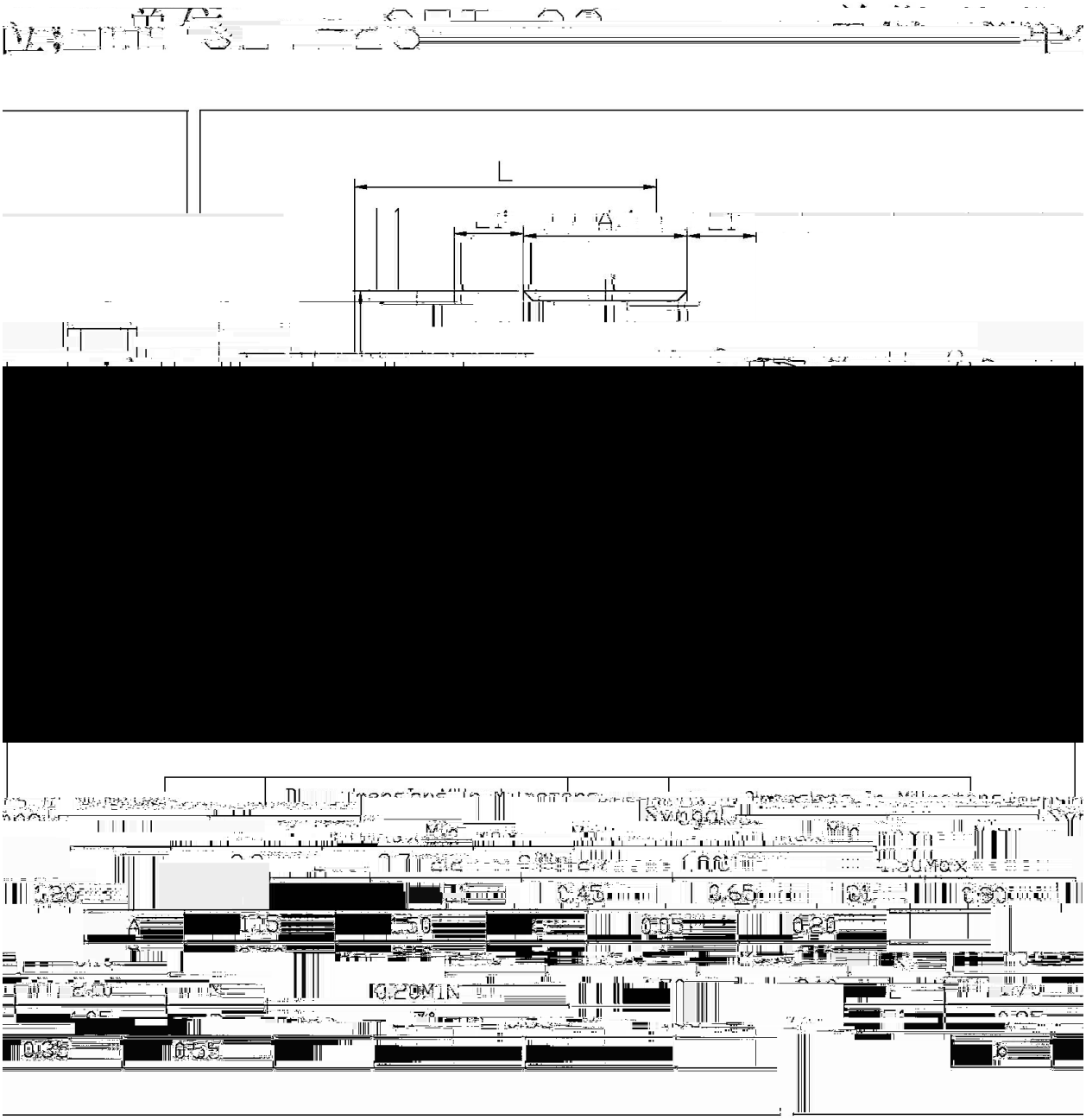
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Input Voltage | $V_{I(off)}$ | $V_{CC}$=5.0V $I_O$=100μA | | | 0.5 | V |
| Input Voltage | $V_{I(on)}$ | $V_O$=0.3V $I_O$=10mA | 3 | | | V |
| Output Voltage | $V_{O(on)}$ | $I_O$=10mA $I_I$=0.5mA | | | 0.3 | V |
| Input Current | $I_I$ | $V_I$=5.0V | | | 0.88 | mA |
| Output Cut-off Current | $I_{O(off)}$ | $V_{CC}$=50V $V_I$=0V | | | 0.5 | μA |
| DC Current Gain | $G_I$ | $V_O$=5.0V $I_O$=5.0mA | 30 | | | |
| Transition Frequency | $f_T$ | $V_{CE}$=10V $I_C$=5.0mA f=100MHz | | 250 | | MHz |
| Resistance1 | $R_1$ | | 7 | 10 | 13 | KΩ |
| Resistance Ratio | $R_2/R_1$ | | 0.8 | 1 | 1.2 | |

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