SOT-23 Voltage Regulator in a SOT-23 Plastic Package.

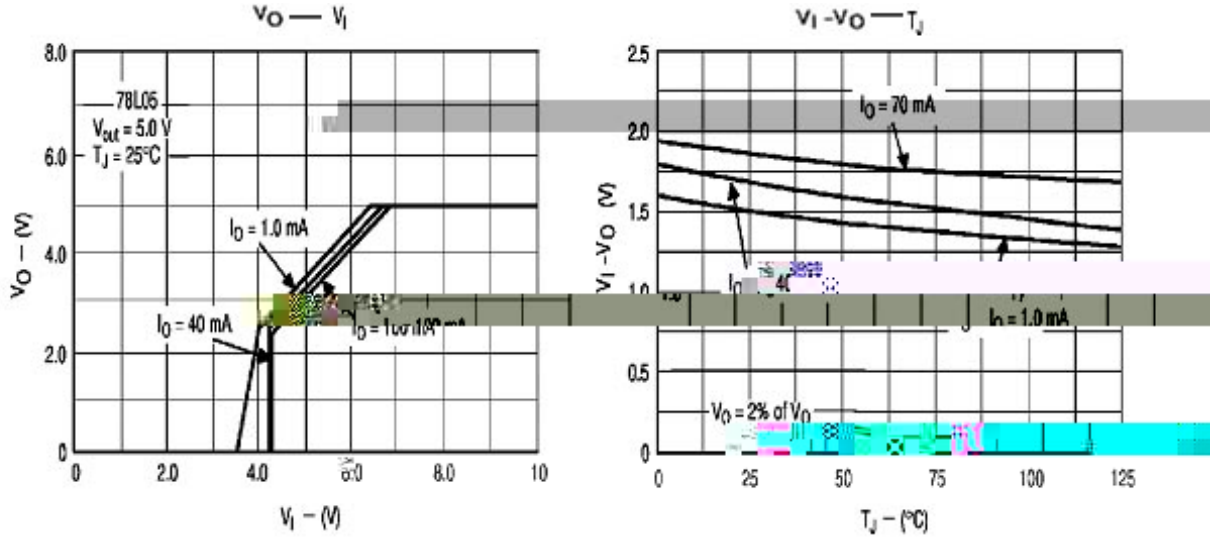
## / Absolute Maximum Ratings(Ta=25 )

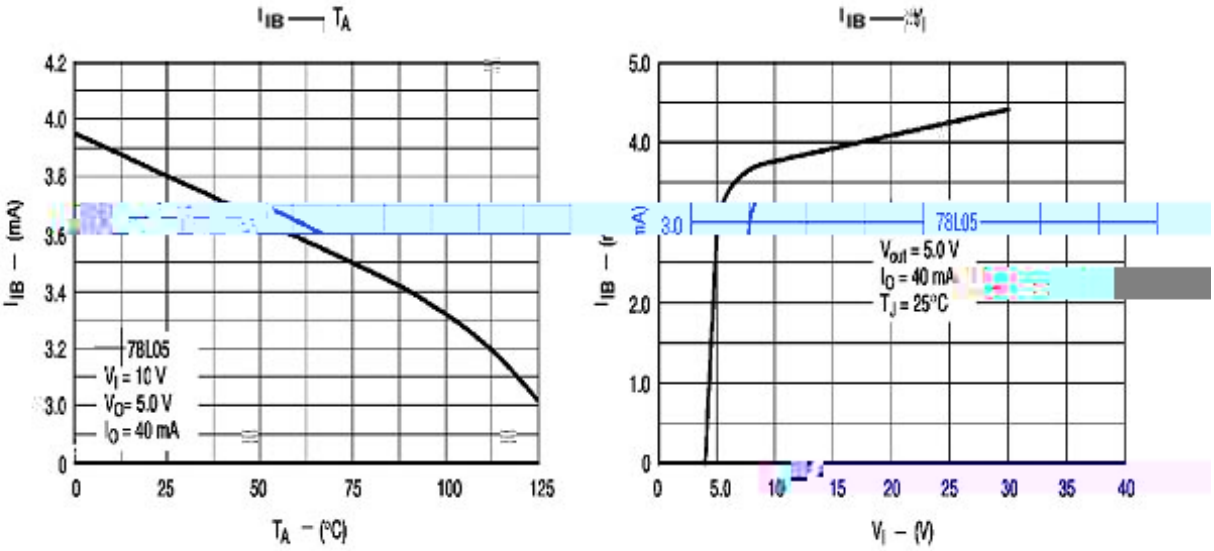
| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Input voltage | $V_I$ | 30 | V |
| Output current | $I_O$ | 100 | mA |
| Operating virtual Junction temperature | $T_J$ | -40 125 | |
| Power Dissipation | $P_D$ | 350 | mW |
| Storage temperature range | $T_{stg}$ | -65 150 | |

## / Electrical Characteristics(Ta=25 Vi=10V,Io=40mA unless otherwise specified)

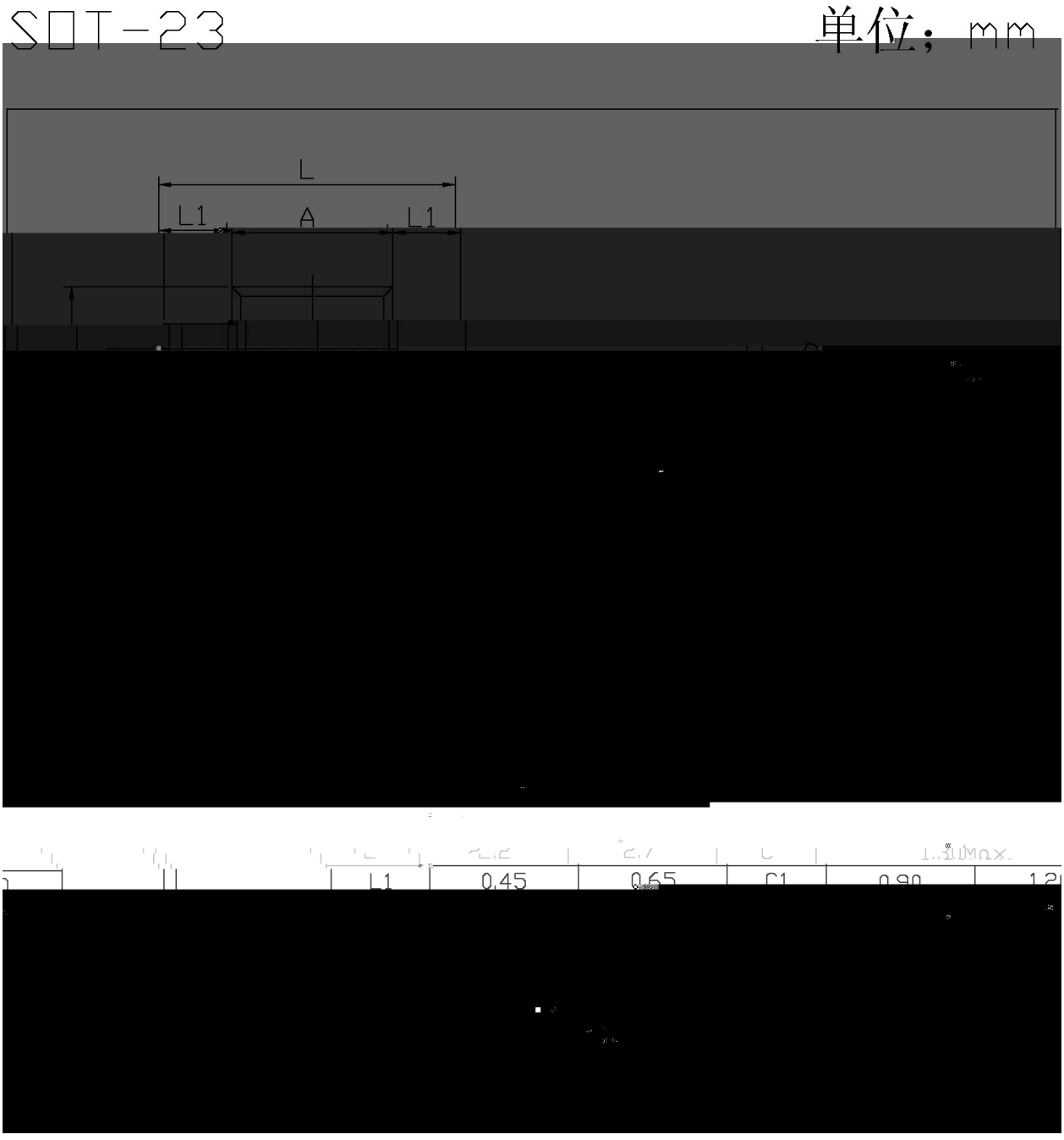
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Output voltage | $V_O$ | $I_o$ 40mA $T_j$=25 | 4.80 | 5.0 | 5.2 | V |
| | | $I_O$=1mA to 40mA $V_I$=7V to 20V | 4.75 | 5.0 | 5.25 | V |
| | | $I_O$=1mA to 70mA $V_I$=10V | 4.75 | 5.0 | 5.25 | V |
| Input regulation | Vo | $V_I$=7V to 20V $T_j$=25 | | 32 | 150 | mV |
| | | $V_I$=8V to 20V $T_j$=25 | | 26 | 100 | mV |
| Output regulation | $V_O$ | $I_O$=1mA to 100mA $T_j$=25 | | 15 | 60 | mV |
| | | $I_O$=1mA to 40 mA $T_j$=25 | | 8 | 30 | mV |
| Ripple rejection | RR | $V_I$=8V to 18V f=120Hz $T_j$=25 | 41 | 49 | | dB |
| Output noise voltage | $V_N$ | f=10Hz~100KHz $T_j$=25 | | 42 | | V |
| Dropout voltage | $V_D$ | $T_j$=25 | | 1.7 | | V |
| Bias current | $I_Q$ | $T_j$=25 | | 3.8 | 6 | mA |
| | | $T_j$=125 | | | 5.5 | mA |
| Bias current change | $I_Q$ | $V_I$=8V to 20V | | | 1.5 | mA |
| | | $I_O$=1mA to 40mA | | | 0.1 | mA |

## / Electrical Characteristic Curve

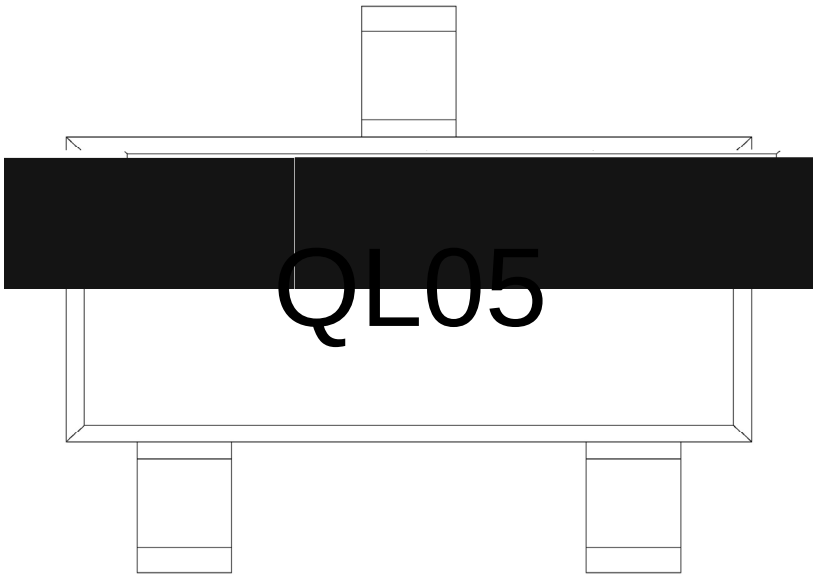


## / Package Dimensions



## / Marking Instructions




Q

L05

Note:

Q: Automobile halogen-free product Code

L05: Product Type Code

## ( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)

| |
|---|
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| |

Note:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | | 150 | 200 | | 60 | 120sec; | 1.Preheating:150~200 , Time:60~120sec. |
| 2 | | 255±5 | | | | 5±0.5sec; | 2.Peak Temp.:255±5 , Duration:5±0.5sec. |
| 3 | | | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

## / Resistance to Soldering Heat Test Conditions

| | | | |
|---|---|---|---|
| 260±5 | 10±1 sec. | Temp.:260±5 | Time:10±1 sec |

/ REEL