AUK Semiconductor

# S78DL05F

**Low Drop output Voltage Regulator**

## Descriptions

- Three Terminal Positive Low Dropout Voltage Regulator

## Features

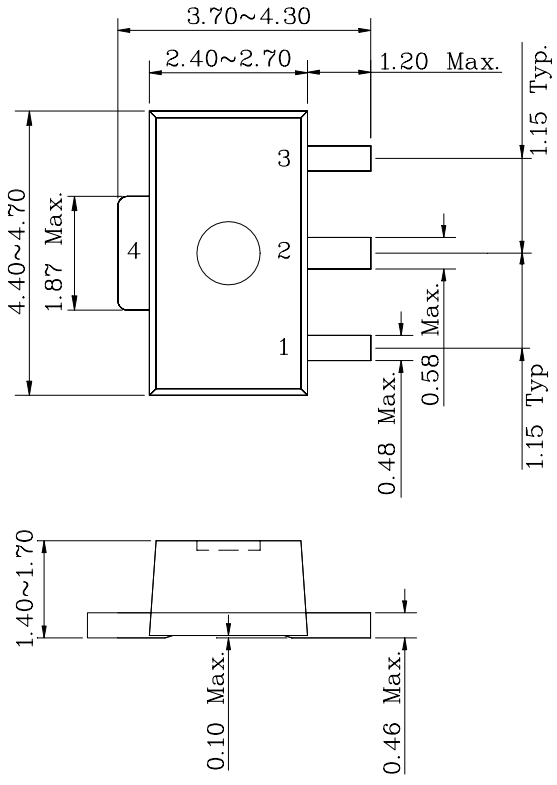
- Low Standby Current Consumption (500 ㎂ Typ.)
- Maximum Output Current (150 ㎃ Max.)
- Low Dropout Voltage (0.7V Max.)

## Ordering Information

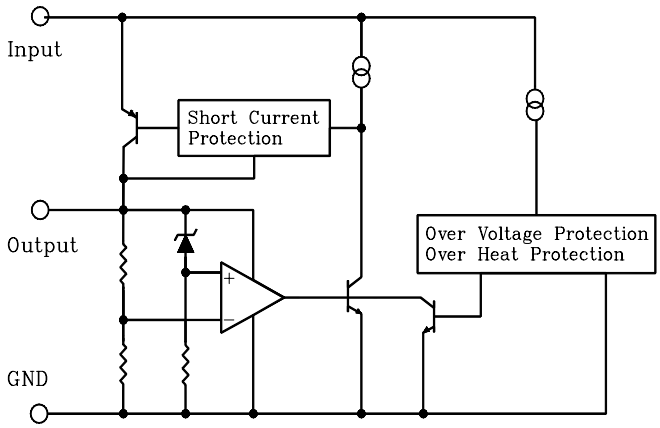
| Type NO. | Marking | Package Code |
|---|---|---|
| S78DL05F | 85□□ | SOT-89 |

□□: Monthly Code, Weekly Code

## Outline Dimensions (unit : mm )




**■Functional Block Diagram**




**PIN Connections**

1. Output
2,4. GND
3. Input

## Maximum ratings

Ta=25°C

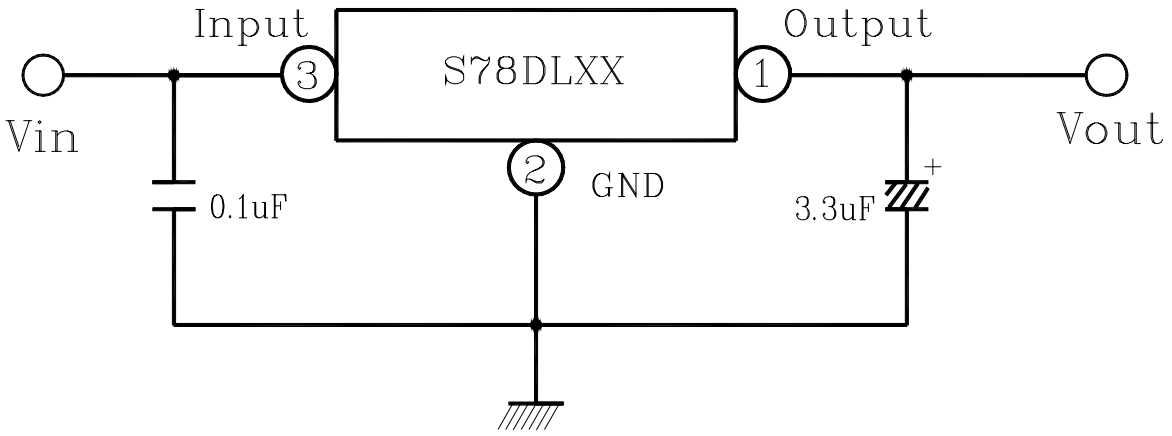
| Characteristic | Symbol | Rating | Unit |
|---|---|---|---|
| Input voltage | $V_{IN}$ | 18 | V |
| Power Dissipation | $P_D$ | 500 | mW |
| Junction Temperature | $T_j$ | 150 | °C |
| Storage Temperature Range | $T_{stg}$ | -55~150 | °C |

## Electrical Characteristics

(※ $V_{IN}$=10V, $I_{OUT}$=10 ㎃, $T_a$ =25°C)

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Output voltage | $V_{OUT}$ | $V_{IN}$=6V~13V | 4.8 | 5 | 5.2 | V |
| Voltage Regulation | $\Delta V_{OUT}(1)$ | $V_{IN}$=6V~13V | - | 10 | 30 | mV |
| Load Regulation | $\Delta V_{OUT}(2)$ | $I_{OUT}$=10~100mA | - | 12 | 50 | mV |
| Quiescent Current | $I_{QC}$ | $I_{OUT}\leq$ 10mA , $V_{IN}$=6V~13V | - | 0.5 | 1 | mA |
| Dropout Voltage | $V_{DROP}$ | $I_{OUT}$=50mA | - | 0.3 | 0.5 | V |
| | | $I_{OUT}$=100mA | - | 0.5 | 0.7 | |

## ■Test circuit



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