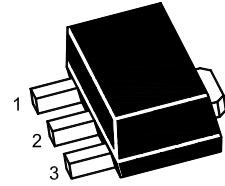


1.OUT  
2.GND  
3.IN



### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

SOT-89 Plastic Package

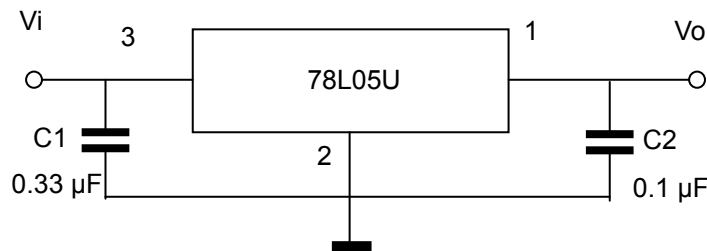
| Parameter                 | Symbol           | Rating            | Unit             |
|---------------------------|------------------|-------------------|------------------|
| Input Voltage             | $V_i$            | 30                | V                |
| Power Dissipation         | $P_{\text{tot}}$ | 800 <sup>1)</sup> | mW               |
| Operating Temperature     | $T_{\text{opr}}$ | - 20 to + 120     | $^\circ\text{C}$ |
| Storage Temperature Range | $T_{\text{stg}}$ | - 55 to +150      | $^\circ\text{C}$ |

<sup>1)</sup> 15 mm x 25 mm x 0.7 mm alumina ceramic board,  $T_a \leq 25^\circ\text{C}$

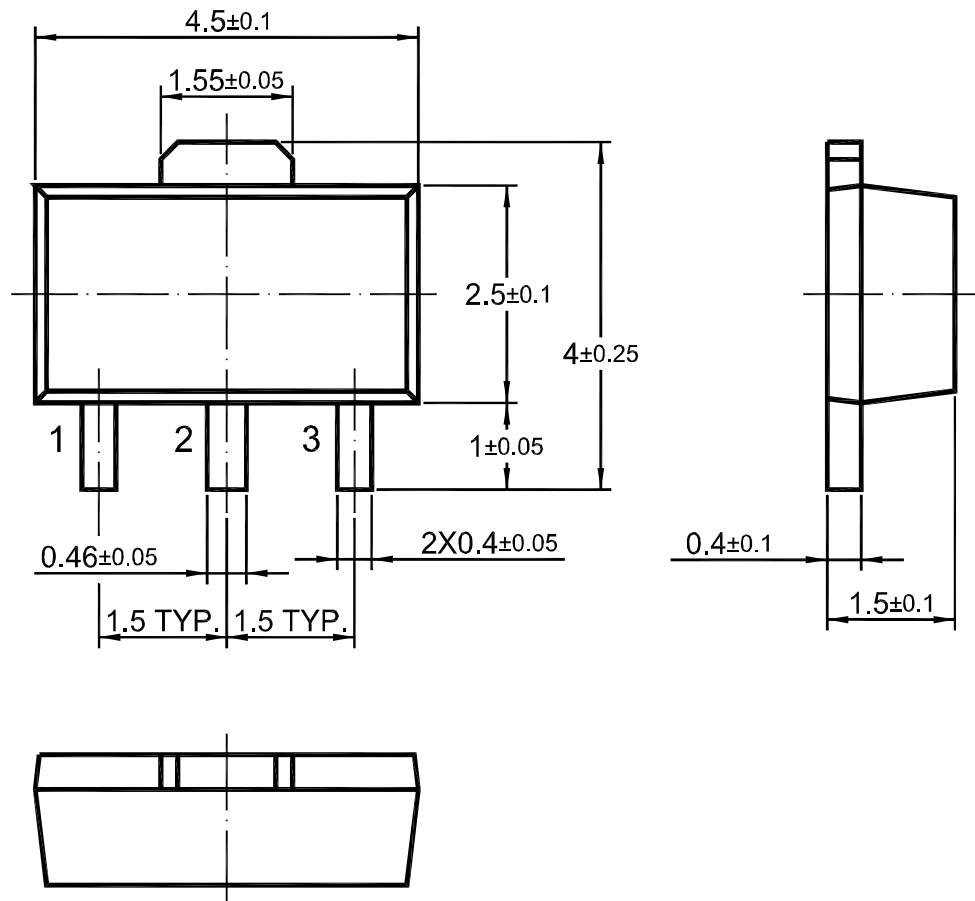
### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

(Unless otherwise specified,  $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$ ,  $V_i = 10\text{ V}$ ,  $I_o = 40\text{ mA}$ ,  $C_i = 0.33\text{ }\mu\text{F}$ ,  $C_o = 0.1\text{ }\mu\text{F}$ )

| Parameter                | Symbol            | Test Condition                                                                          | Min. | Typ. | Max. | Unit          |
|--------------------------|-------------------|-----------------------------------------------------------------------------------------|------|------|------|---------------|
| Output Voltage           | $V_o$             | $T_j = 25^\circ\text{C}$                                                                | 4.8  | 5    | 5.2  | V             |
|                          |                   | $7\text{ V} \leq V_i \leq 20\text{ V}$ , $1\text{ mA} \leq I_o \leq 40\text{ mA}$       | 4.75 | -    | 5.25 | V             |
|                          |                   | $V_i = 10\text{ V}$ , $1\text{ mA} \leq I_o \leq 70\text{ mA}$                          | 4.75 | -    | 5.25 | V             |
| Line Regulation          | Regline           | $7\text{ V} \leq V_i \leq 20\text{ V}$ , $T_j = 25^\circ\text{C}$                       | -    | -    | 150  | mV            |
|                          |                   | $8\text{ V} \leq V_i \leq 20\text{ V}$ , $T_j = 25^\circ\text{C}$                       | -    | -    | 100  |               |
| Load Regulation          | Regload           | $1\text{ mA} \leq I_o \leq 100\text{ mA}$ , $T_j = 25^\circ\text{C}$                    | -    | -    | 60   | mV            |
|                          |                   | $1\text{ mA} \leq I_o \leq 40\text{ mA}$ , $T_j = 25^\circ\text{C}$                     | -    | -    | 30   |               |
| Quiescent Current        | $I_Q$             | $T_j = 25^\circ\text{C}$                                                                | -    | -    | 5.5  | mA            |
| Quiescent Current Change | $\Delta I_Q$      | $8\text{ V} \leq V_i \leq 20\text{ V}$                                                  | -    | -    | 1.5  | mA            |
|                          |                   | $1\text{ mA} \leq I_o \leq 40\text{ mA}$                                                | -    | -    | 0.1  |               |
| Output Noise Voltage     | $V_N$             | $10\text{ Hz} \leq f \leq 100\text{ KHz}$ , $T_j = 25^\circ\text{C}$                    | -    | 40   | -    | $\mu\text{V}$ |
| Ripple Rejection         | RR                | $f = 120\text{ Hz}$ , $8\text{ V} \leq V_i \leq 18\text{ V}$ , $T_j = 25^\circ\text{C}$ | 41   | -    | -    | dB            |
| Dropout Voltage          | $V_{\text{Drop}}$ | $T_j = 25^\circ\text{C}$                                                                | -    | 1.7  | -    | V             |



**SOT-89 PACKAGE OUTLINE**



Dimensions in mm