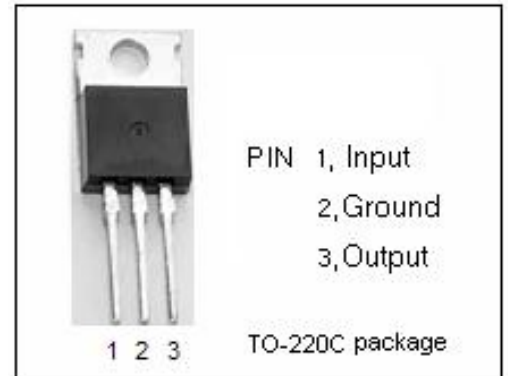


**isc Three Terminal Positive Voltage Regulator**

**KA7809ETU**

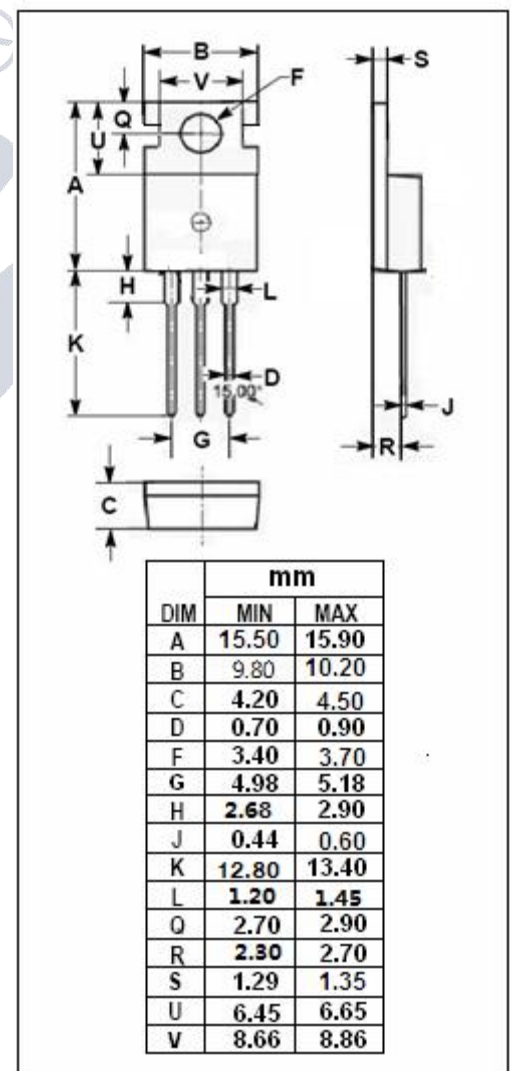
**FEATURES**

- Output current in excess of 1.5A
- Output voltage of 9V
- Internal thermal overload protection
- Output transition Safe-Area compensation



**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

| SYMBOL           | PARAMETER                      | RATING             | UNIT |
|------------------|--------------------------------|--------------------|------|
| V <sub>i</sub>   | DC input voltage               | 26                 | V    |
| I <sub>o</sub>   | Output current                 | internally limited |      |
| P <sub>tot</sub> | Power dissipation              | internally limited |      |
| T <sub>OP</sub>  | Operating junction temperature | -40~125            | °C   |
| T <sub>stg</sub> | Storage temperature            | -55~150            | °C   |



**THERMAL CHARACTERISTICS**

| SYMBOL              | PARAMETER                               | MAX | UNIT |
|---------------------|---|-----|------|
| R <sub>th j-c</sub> | Thermal Resistance, Junction to Case    | 5   | °C/W |
| R <sub>th j-a</sub> | Thermal Resistance, Junction to Ambient | 65  | °C/W |

**isc Three Terminal Positive Voltage Regulator****KA7809ETU****• ELECTRICAL CHARACTERISTICS** $T_j=25^{\circ}\text{C}$  ( $V_i=15\text{V}$ ,  $I_o=0.5\text{A}$ ,  $C_i=0.33\ \mu\text{F}$ ,  $C_o=0.1\ \mu\text{F}$  unless otherwise specified)

| SYMBOL        | PARAMETER                | CONDITIONS  | MIN  | MAX  | UNIT |
|---------------|--------------------------|---|------|------|------|
| $V_o$         | Output Voltage           | $V_{in}=15\text{V}$ ; $I_o=500\text{mA}$                      | 8.65 | 9.35 | V    |
| $\Delta V_v$  | Line Regulation          | $11.5\text{V}\leq V_{in}\leq 26\text{V}$ ; $I_o=500\text{mA}$ |      | 100  | mV   |
| $\Delta V_i$  | Load Regulation          | $5.0\text{mA}\leq I_o\leq 1.5\text{A}$ ; $V_{in}=15\text{V}$  |      | 100  | mV   |
| $I_b$         | Quiescent Current        | $V_{in}=15\text{V}$ ; $I_o=0.5\text{A}$                       |      | 8.0  | mA   |
| $\Delta_{b1}$ | Quiescent Current Change | $5.0\text{mA}\leq I_o\leq 1.0\text{A}$ ; $V_{in}=15\text{V}$  |      | 0.25 | mA   |
| $\Delta_{b2}$ | Quiescent Current Change | $12\text{V}\leq V_{in}\leq 26\text{V}$ ; $I_o=500\text{mA}$   |      | 0.4  | mA   |

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