

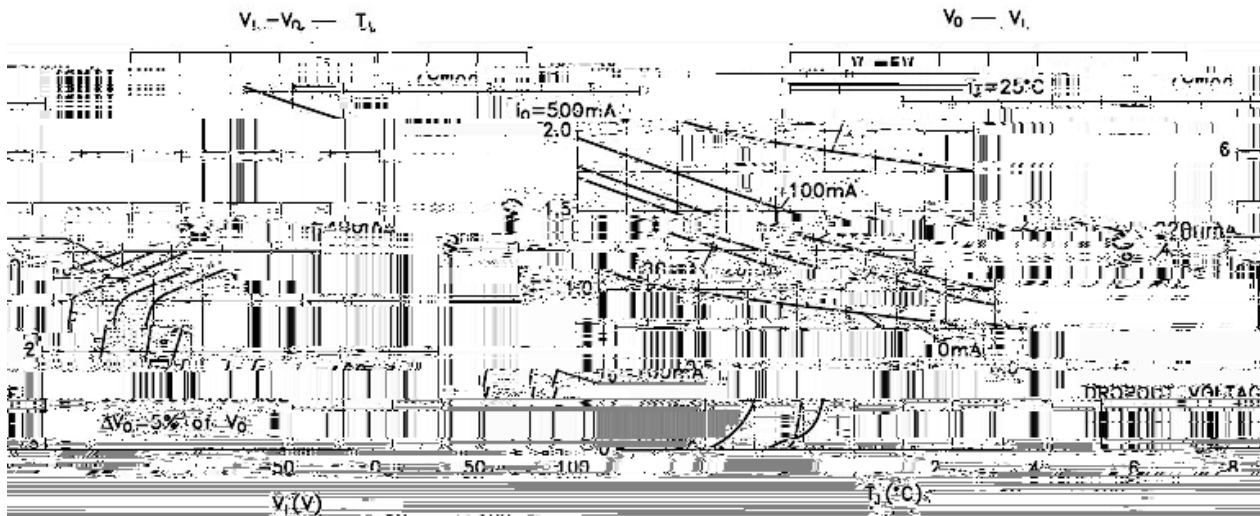
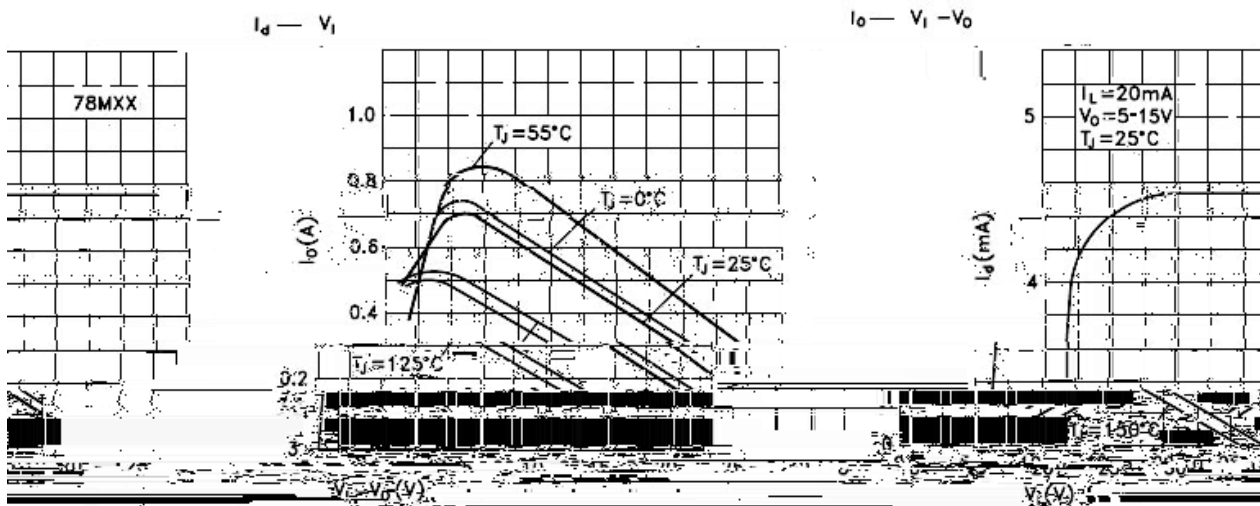
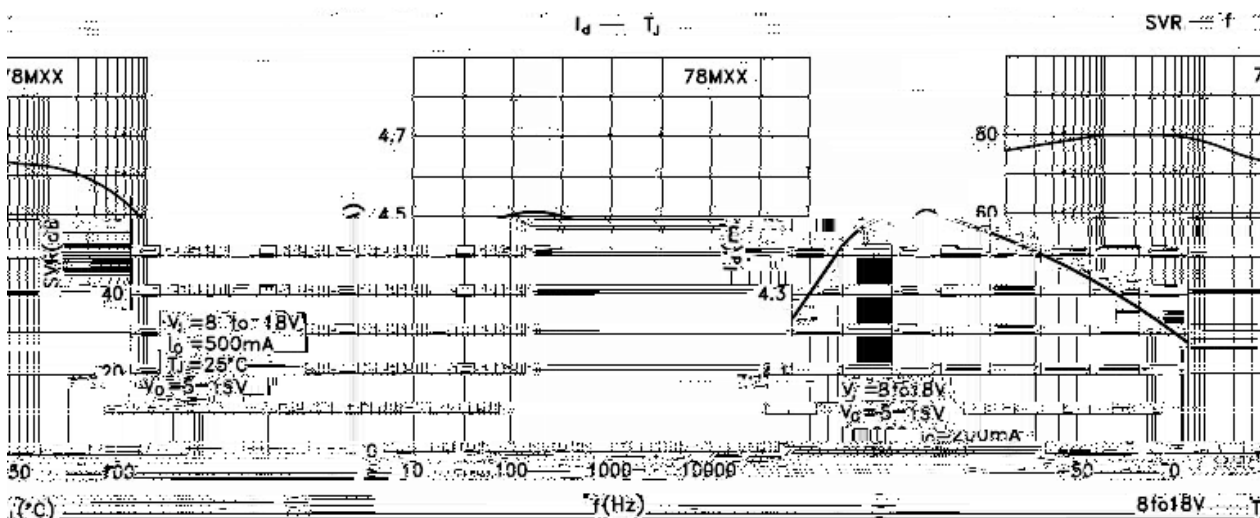
**78M08**  
Rev.G Dec.-2018

TO-252 正电压调整器 Voltage Regulator in a TO-252 Plastic Package.

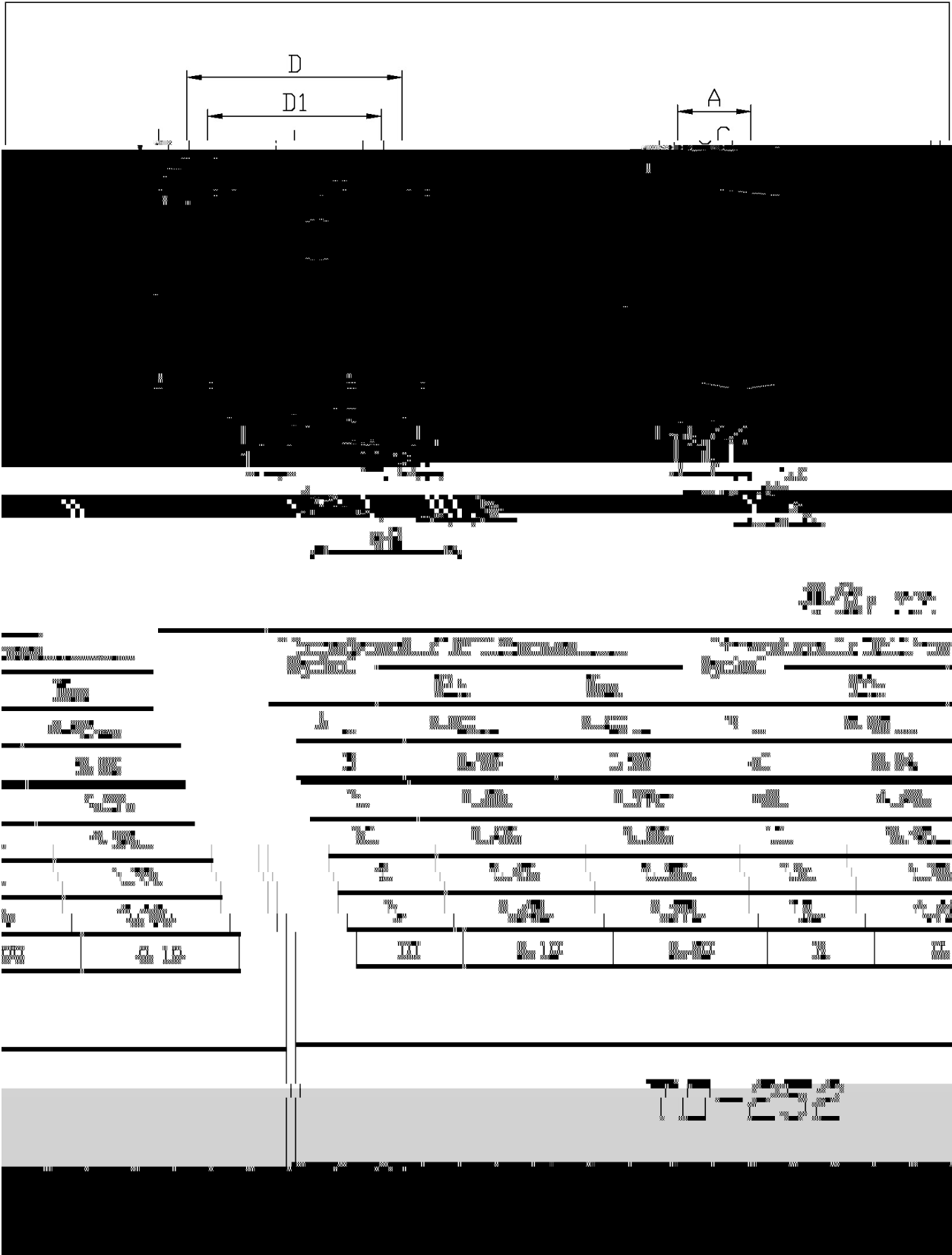
| Parameter                            | Symbol          | Rating    | Unit |
|--------------------------------------|-----------------|-----------|------|
| Input voltage                        | $V_i$           | 35        | V    |
| Thermal Resistance Junction-ambient  | $R_{\theta JA}$ | 100       | /W   |
| Thermal Resistance Junction-case     | $R_{\theta JC}$ | 8.0       | /W   |
| Operating Junction Temperature Range | $T_{OPR}$       | 0 ~ 125   |      |
| Storage temperature range            | $T_{stg}$       | -65 ~ 150 |      |

| Parameter                | Symbol    | Test Conditions                    | Min | Typ | Max | Unit    |
|--------------------------|-----------|------------------------------------|-----|-----|-----|---------|
| Output voltage           | $V_o$     | $T_j=25$                           | 7.8 | 8   | 8.2 | V       |
|                          |           | $V_i=10.5V-25V$<br>$I_o=5mA-350mA$ | 7.7 | 8   | 8.3 | V       |
| Load Regulation          | $V_o$     | $T_j=25$<br>$I_o=5mA-500mA$        |     |     | 100 | mV      |
|                          |           | $T_j=25$<br>$I_o=5mA-200mA$        |     |     | 50  | mV      |
| Line regulation          | $V_o$     | $T_j=25$<br>$V_i=10.5V-25V$        |     |     | 100 | mV      |
|                          |           | $T_j=25$<br>$V_i=11V-25V$          |     |     | 50  | mV      |
| Output Noise Voltage     | eN        | $T_j=25$<br>B=10Hz-100KHz          |     | 52  |     | $\mu V$ |
| Supply Voltage Rejection | SVR       | f=120Hz<br>$V_i=11.5V-21.5V$       | 56  |     |     | dB      |
| Short Circuit Current    | Isc       | $V_i=35V$ $T_j=25$                 |     | 250 |     | mA      |
| Quiescent Current        | $I_d$     | $T_j=25$                           |     |     | 6   | mA      |
| Quiescent Current Change | $I_d$     | $V_i=8V-25V$                       |     |     | 0.8 | mA      |
|                          |           | $I_o=5mA-350mA$                    |     |     | 0.5 | mA      |
| Output Voltage Drift     | $V_o / T$ | $I_o=5mA$                          |     | 0.5 |     | mV/     |

/ Electrical Characteristic Curve

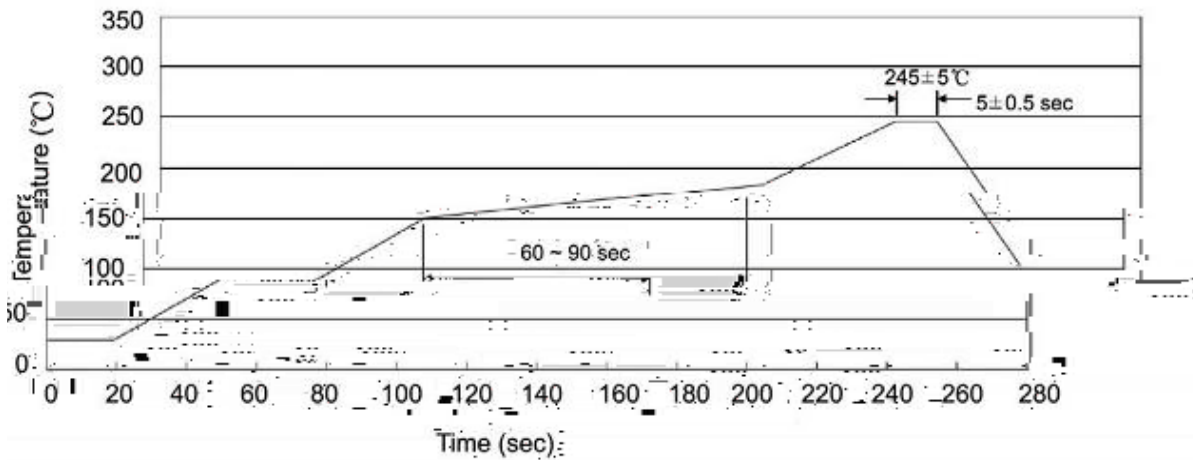


/ Package Dimensions





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



1. 150~180 °C, Time: 60~90sec;  
2. 245±5 °C, Duration: 5±0.5sec;  
3. Cooling Speed: 2~10 °C/sec.

- Note:  
1. Preheating: 150~180 °C, Time: 60~90sec.  
2. Peak Temp.: 245±5 °C, Duration: 5±0.5sec.  
3. Cooling Speed: 2~10 °C/sec.

/ Resistance to Soldering Heat Test Conditions

Temp: 260±5 °C, Time: 10±1 sec.

/ Packaging SPEC.

/ REEL

| Package Type | Units      |                 |                 |                       |                 | Dimension (unit mm <sup>3</sup> ) |            |             |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|------------|-------------|
|              | Units/Reel | Reels/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Reel                              | Inner Box  | Outer Box   |
| TO-252       | 2,500      | 2               | 5,000           | 6                     | 30,000          | 13 × 16                           | 360×360×50 | 380×335×366 |

/ TUBE

| Package Type | Units      |                 |                 |                       |                 | Dimension (unit mm <sup>3</sup> ) |           |           |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|-----------|-----------|
|              | Units/Tube | Tubes/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Tube                              | Inner Box | Outer Box |