



Electrical Characteristics

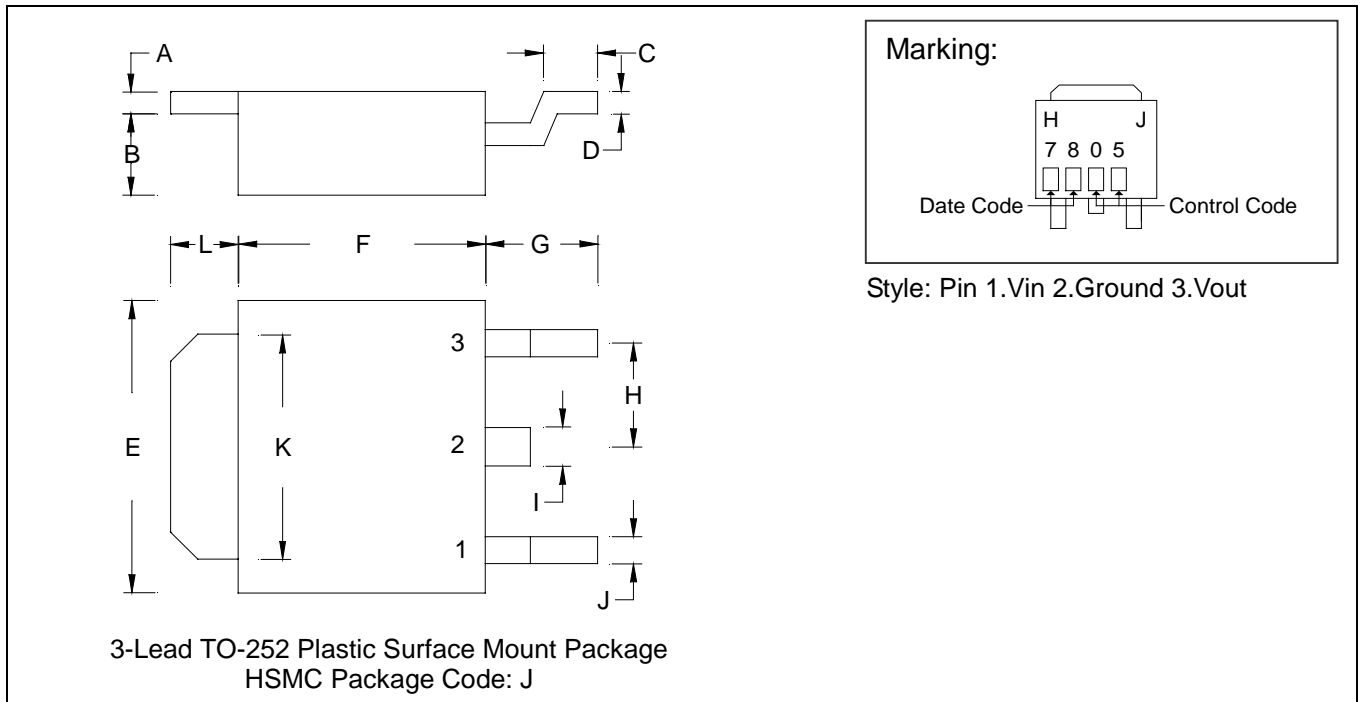
Vin=10V, Io=500mA, 0°C≤Tj≤125°C (unless otherwise noted)

| Symbol | Parameter | Conditions | H7805AJ | | | Units |
|----------|--------------------------|------------------------|---------|------|------|-------|
| | | | Min | Typ | Max | |
| Vo | Output Voltage | Tj=25°C | 4.85 | 5 | 5.15 | V |
| | | PD≤15W, 5mA≤Io≤1A | 4.85 | 5 | 5.15 | |
| ΔVo | Line Regulation | Tj=25°C, 7V≤Vin≤25V | - | 4 | 50 | mV |
| | | Tj=25°C, 8V≤Vin≤25V | - | 1.6 | 25 | |
| ΔVo | Load Regulation | 5mA≤Io≤1A | - | - | 100 | mV |
| | | 250mA≤Io≤750mA | - | - | 50 | |
| IQ | Quiescent Current | Io≤1A, Tj=25°C | - | 5.5 | 8 | mA |
| ΔIQ | Quiescent Current Change | 5mA≤Io≤1A | - | - | 0.5 | mA |
| | | 7V≤Vin≤25V | - | - | 1.3 | |
| Vn | Output Noise Voltage | Ta=25°C, 10Hz≤f≤100KHz | - | 40 | 200 | uV |
| RR | Ripple Rejection | 8V≤Vin≤18V, f=120Hz | - | 68 | - | dB |
| VD | Dropout Voltage | Tj=25°C, Io=1A | - | 2 | - | V |
| Isc | Short Circuit Current | Tj=25°C | - | 1.5 | - | A |
| Ipk | Peak Output Current | Tj=25°C | 1.7 | - | - | A |
| ΔVo / ΔT | Average Tc of Vout | 0°C≤Tj≤+125°C, Io=5mA | - | -0.8 | - | mV/°C |

| Symbol | Parameter | Conditions | H7805BJ | | | Units |
|----------|--------------------------|------------------------|---------|------|------|-------|
| | | | Min | Typ | Max | |
| Vo | Output Voltage | Tj=25°C | 4.8 | 5 | 5.2 | V |
| | | PD≤15W, 5mA≤Io≤1A | 4.75 | 5 | 5.25 | |
| ΔVo | Line Regulation | Tj=25°C, 7V≤Vin≤25V | - | 4 | 100 | mV |
| | | Tj=25°C, 8V≤Vin≤25V | - | 1.6 | 50 | |
| ΔVo | Load Regulation | 5mA≤Io≤1A | - | - | 100 | mV |
| | | 250mA≤Io≤750mA | - | - | 50 | |
| IQ | Quiescent Current | Io≤1A, Tj=25°C | - | 5.5 | 8 | mA |
| ΔIQ | Quiescent Current Change | 5mA≤Io≤1A | - | - | 0.5 | mA |
| | | 7V≤Vin≤25V | - | - | 1.3 | |
| Vn | Output Noise Voltage | Ta=25°C, 10Hz≤f≤100KHz | - | 100 | 300 | uV |
| RR | Ripple Rejection | 8V≤Vin≤18V, f=120Hz | 62 | 73 | - | dB |
| VD | Dropout Voltage | Tj=25°C, Io=1A | - | 2.5 | - | V |
| Isc | Short Circuit Current | Tj=25°C | - | 1.5 | - | A |
| Ipk | Peak Output Current | Tj=25°C | 1.7 | - | - | A |
| ΔVo / ΔT | Average Tc of Vout | 0°C≤Tj≤+125°C, Io=5mA | - | -0.8 | - | mV/°C |



TO-252 Dimension



*: Typical

| DIM | Inches | | Millimeters | | DIM | Inches | | Millimeters | |
|-----|--------|--------|-------------|------|-----|--------|---------|-------------|-------|
| | Min. | Max. | Min. | Max. | | Min. | Max. | Min. | Max. |
| A | 0.0177 | 0.0217 | 0.45 | 0.55 | G | 0.0866 | 0.1102 | 2.20 | 2.80 |
| B | 0.0650 | 0.0768 | 1.65 | 1.95 | H | - | *0.0906 | - | *2.30 |
| C | 0.0354 | 0.0591 | 0.90 | 1.50 | I | - | 0.0354 | - | 0.90 |
| D | 0.0177 | 0.0236 | 0.45 | 0.60 | J | - | 0.0315 | - | 0.80 |
| E | 0.2520 | 0.2677 | 6.40 | 6.80 | K | 0.2047 | 0.2165 | 5.20 | 5.50 |
| F | 0.2125 | 0.2283 | 5.40 | 5.80 | L | 0.0551 | 0.0630 | 1.40 | 1.60 |

- Notes: 1.Dimension and tolerance based on our Spec. dated May. 05,1996.
 2.Controlling dimension: millimeters.
 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

Material:

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of HSMC.
- HSMC reserves the right to make changes to its products without notice.
- **HSMC semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.**
- HSMC assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

Head Office And Factory:

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
 Tel: 886-2-25212056 Fax: 886-2-25632712, 25368454
- **Factory 1:** No. 38, Kuang Fu S. Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
 Tel: 886-3-5983621~5 Fax: 886-3-5982931