

7805F

Rev.G Jun.-2024

描述 / Descriptions

TO-220F 塑封封装电压调整器。Voltage Regulator in a TO-220F Plastic Package.

特征 / Features

三端稳压调整器，输出电流高达 1.5A,内设过热保护和短路限制。

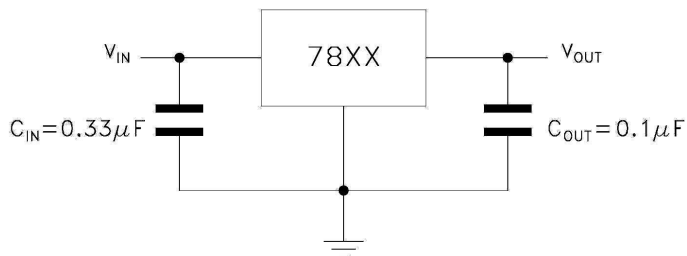
3-Terminal regulators ,output current up to 1.5A, internal thermal overload protection and short-circuit limiting.

用途 / Applications

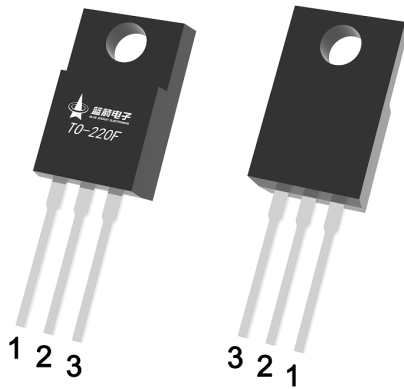
电压调整器。

Voltage Regulator.

内部等效电路/应用电路 / Equivalent Circuit or Application Circuit



引脚排列 / Pinning



PIN 1 : IN

PIN 2 : GND

PIN 3 : OUT

印章代码 / Marking

见印章说明。

See Marking Instructions.

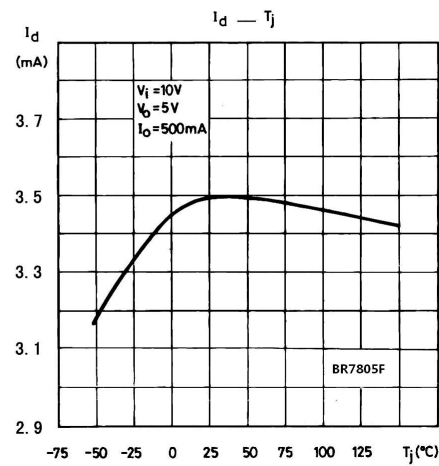
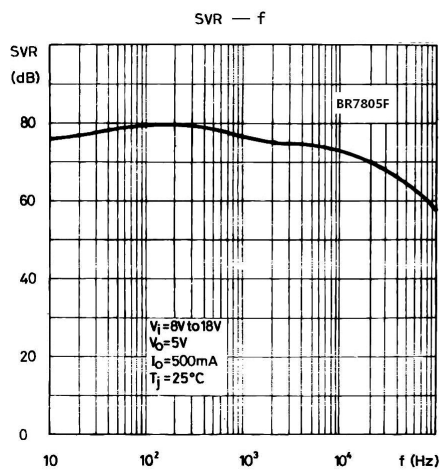
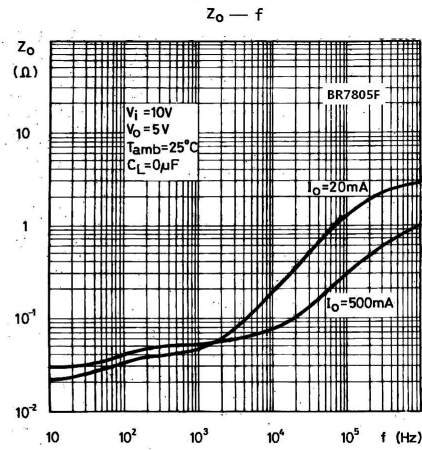
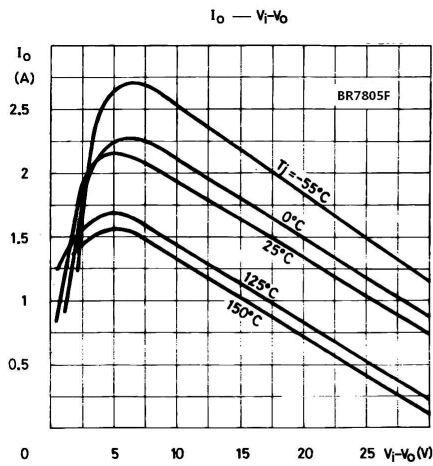
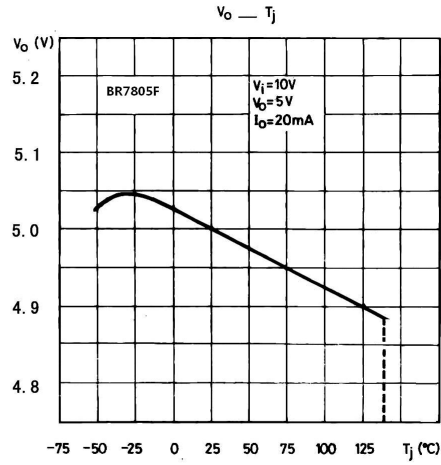
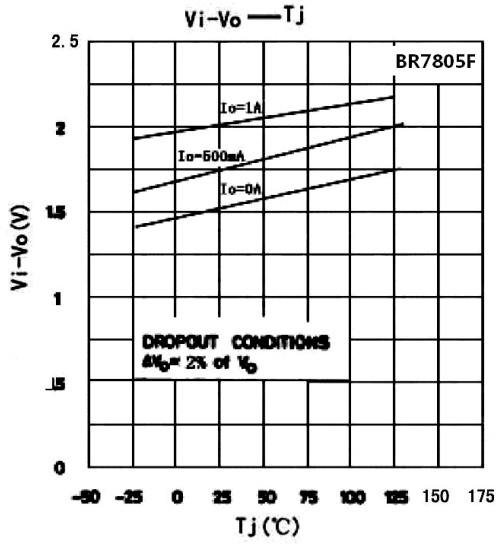
极限参数 / Absolute Maximum Ratings(Ta=25°C)

| 参数 Parameter | 符号 Symbol | 数值 Rating | 单位 Unit |
|-------------------------------------|------------------|--------------|------------|
| Input voltage | V _I | 35 | V |
| Thermal Resistance Junction-ambient | R _{θJA} | 60 | °C/W |
| Thermal Resistance Junction-case | R _{θJC} | 5.0 | °C/W |
| Operating Temperature Range | T _{OPR} | -40~125 | °C |
| Storage temperature range | T _{stg} | -65~150 | °C |

电性能参数 / Electrical Characteristics(Ta=25°C ,Vi=10V,Io=500mA , unless otherwise specified)

| 参数 Parameter | 符号 Symbol | 测试条件 Test Conditions | 最小值 Min | 典型值 Typ | 最大值 Max | 单位 Unit |
|----------------------------|---------------------|--|------------|------------|------------|-------------------|
| Output voltage | V _O | T _j =25°C | 4.8 | 5.0 | 5.2 | V |
| | | V _i =7V-20V I _o =5mA-1A P _o ≤15W | 4.75 | 5.0 | 5.25 | V |
| Load Regulation | ΔV _O | T _j =25°C I _o =5mA-1.5A | | | 100 | mV |
| | | T _j =25°C I _o =250mA-750mA | | | 50 | mV |
| Line regulation | ΔV _O | T _j =25°C V _i =7V-25V | | 3.0 | 100 | mV |
| | | T _j =25°C V _i =8V-12V | | 1.0 | 50 | mV |
| Quiescent Current | I _q | T _j =25°C | | | 8.0 | mA |
| Quiescent Current Change | ΔI _q | V _i =7V-25V | | | 0.8 | mA |
| | | I _o =5mA-1A | | | 0.5 | mA |
| Output Voltage Drift | ΔV _O /ΔT | I _o =5mA | | -1.1 | | mV/°C |
| Output Noise Voltage | e _N | B=10Hz-100KHz T _j =25°C | | | 40 | μV/V _O |
| Supply Voltage Rejection | SVR | V _i =8V-18V f=120Hz | 62 | | | dB |
| Dropout Voltage | V _d | I _o =1A T _j =25°C | | 2.0 | | V |
| Output Resistance | R _o | f=1KHz | | 17 | | mΩ |
| Short Circuit Current | I _{sc} | V _i =35V T _j =25°C | | 0.75 | | A |
| Short Circuit Peak Current | I _{scp} | T _j =25°C | | 2.2 | | A |

电参数曲线图 / Electrical Characteristic Curve



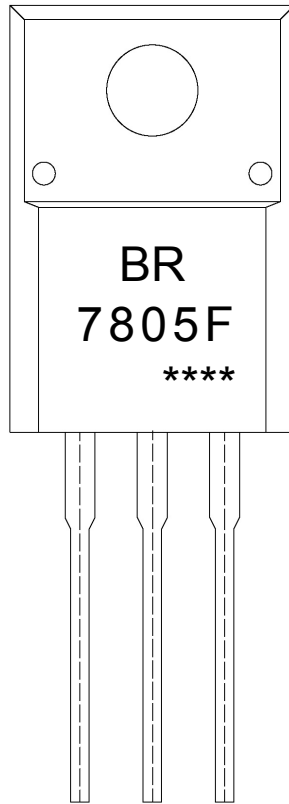
外形尺寸图 / Package Dimensions

TO-220F

单位: mm



印章说明 / Marking Instructions



说明：

BR： 为公司代码

7805F： 为产品型号

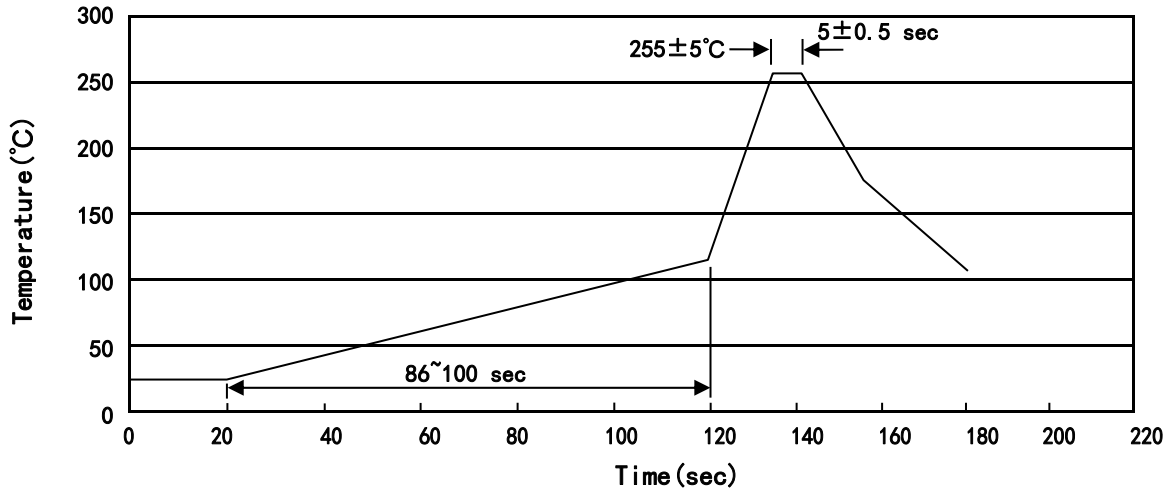
****： 为生产批号代码，随生产批号变化

Note:

BR: Company Code

7805F: Product Type

****: Lot No. Code, code change with Lot No

波峰焊温度曲线图(无铅) / Temperature Profile for Dip Soldering(Pb-Free)


说明：

- 1、预热温度 25~150°C，时间 60~90sec;
- 2、峰值温度 255±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:255±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：270±5°C

时间：10±1 sec.

Temp.:270±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

散件包装 / BULK

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|------------------|-----------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
| | Units/Bag 只/袋 | Bags/Inner Box 袋/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 只/箱 | Bag 袋 | Inner Box 盒 | Outer Box 箱 |
| TO-220/F | 200 | 10 | 2,000 | 5 | 10,000 | 135×190 | 237×172×102 | 560×245×195 |

套管包装 / TUBE

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
| | Units/Tube 只/套管 | Tubes/Inner Box 套管/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 只/箱 | Tube 套管 | Inner Box 盒 | Outer Box 箱 |
| TO-220/F | 50 | 20 | 1,000 | 5 | 5,000 | 532×31.4×5.5 | 555×164×50 | 575×290×180 |

使用说明 / Notices