

78B05

Rev.A Aug.-2023

描述 / Descriptions

TO-263 塑封封装电压调整器。

Voltage Regulator in a TO-263 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，无卤产品。

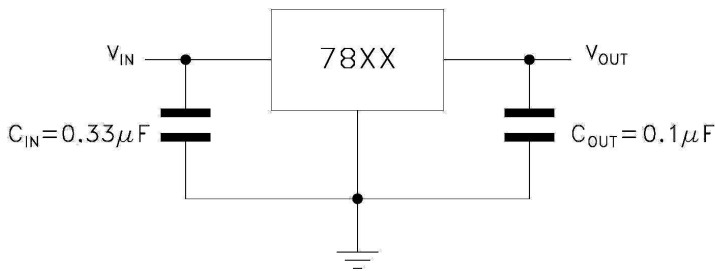
3-Terminal regulators ,output current up to 1.5A, internal thermal overload protection and short-circuit limiting, HF Product.

用途 / Applications

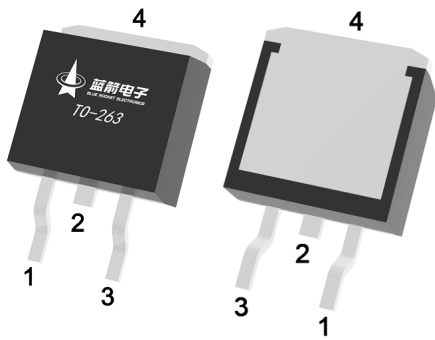
电压调整器。

Voltage Regulator.

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



引脚排列 / Pinning



PIN1 : IN

PIN 2、 4 : GND

PIN 3 : OUT

印章代码 / Marking

见印章说明。

See Marking Instructions.

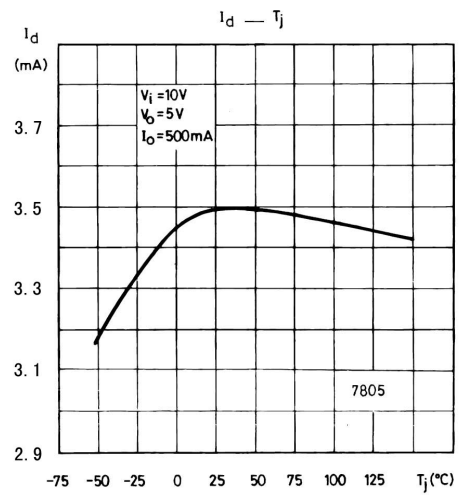
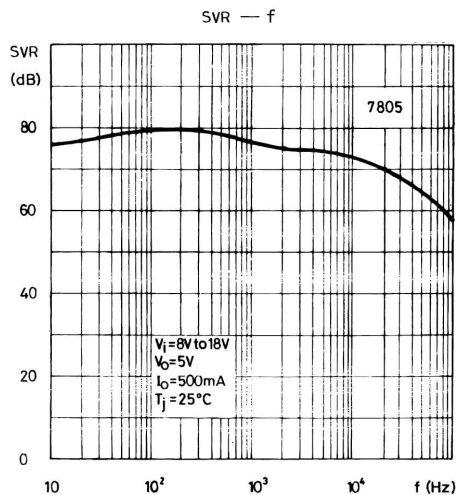
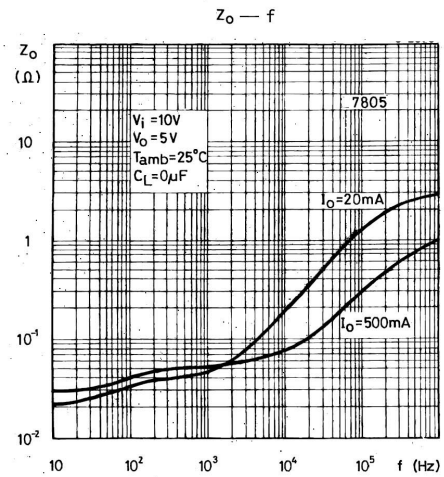
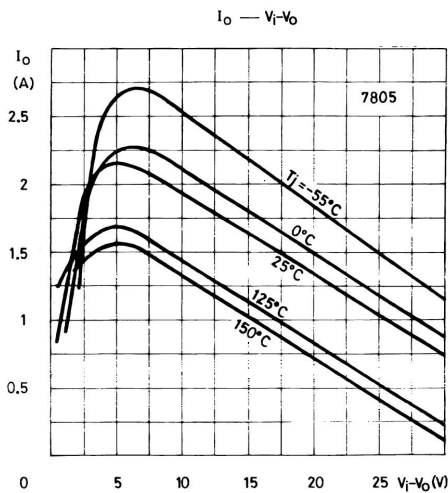
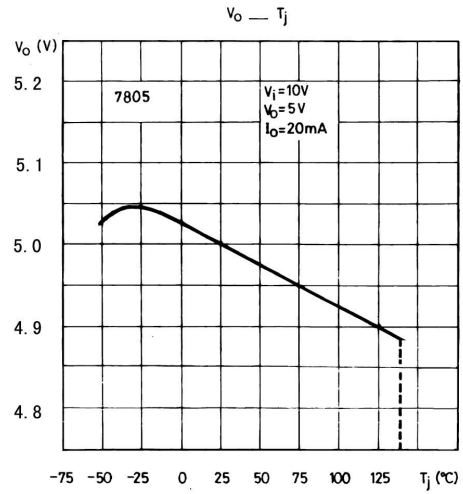
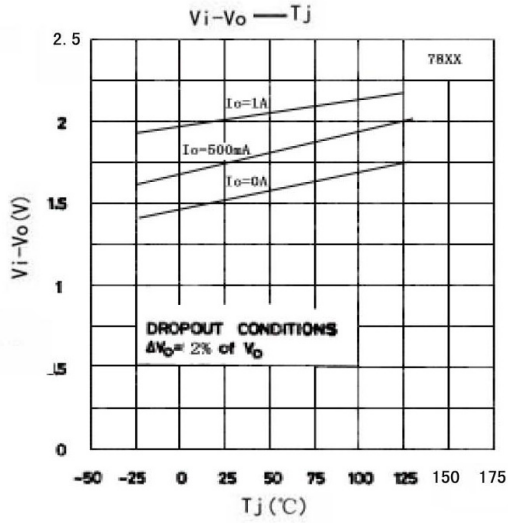
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Input voltage	V_i	35	V
Thermal Resistance Junction-ambient	$R_{\theta JA}$	62.5	°C/W
Thermal Resistance Junction-case	$R_{\theta JC}$	5.0	°C/W
Junction Temperature	T_j	150	°C
Operating Junction Temperature Range	T_{OPR}	0~125	°C
Storage temperature range	T_{stg}	-65~150	°C

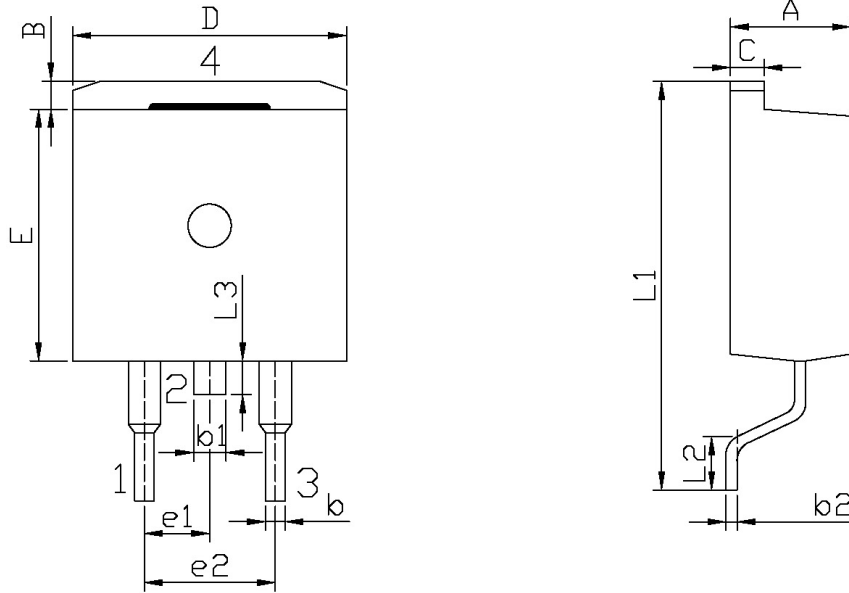
电性能参数 / Electrical Characteristics(Ta=25°C , $V_i=10V, I_o=500mA$, unless otherwise specified)

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	$T_j=25^\circ C$	4.8	5.0	5.2	V
		$V_i=7V-20V$ $I_o=5mA-1A$ $P_o \leq 15W$	4.75	5.0	5.25	V
Load Regulation	ΔV_{Load}	$T_j=25^\circ C$ $I_o=5mA-1.5A$			100	mV
		$T_j=25^\circ C$ $I_o=250mA-750mA$			50	mV
Line Regulation	ΔV_{Line}	$T_j=25^\circ C$ $V_i=7V-25V$		3.0	100	mV
		$T_j=25^\circ C$ $V_i=8V-12V$		1.0	50	mV
Quiescent Current	I_q	$T_j=25^\circ C$			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	$\Delta V_o / \Delta T$	$I_o=5mA$		-1.1		mV/°C
Output Noise Voltage	eN	B=10Hz-100KHz $T_j=25^\circ C$			40	$\mu V/V_o$
Supply Voltage Rejection	SVR	$V_i=8V-18V$ $f=120Hz$	62			dB
Dropout Voltage	V_d	$I_o=1A$ $T_j=25^\circ C$		2.0		V
Output Resistance	R_o	$f=1KHz$		17		m Ω
Short Circuit Current	I_{sc}	$V_i=35V$ $T_j=25^\circ C$		0.75		A
Short Circuit Peak Current	I_{scp}	$T_j=25^\circ C$		2.2		A

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

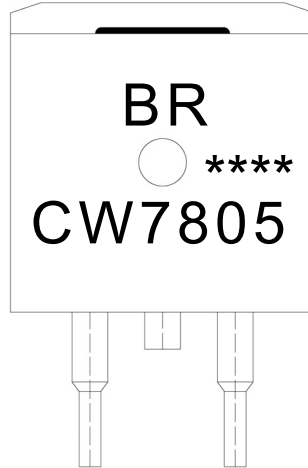


单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	4.30	4.70	E	9.00	9.40
B	1.00	1.40	e1	2.34	2.74
b	0.70	0.90	e2	4.88	5.28
b1	1.15	1.35	L1	15.00	16.00
b2	0.40	0.60	L2	2.24	2.84
C	1.20	1.40	L3	1.20	1.60
D	9.80	10.20			

TQ-263

印章说明 / Marking Instructions



说明：

BR： 为公司代码

CW7805： 为型号代码

****： 为生产批号代码，随生产批号变化

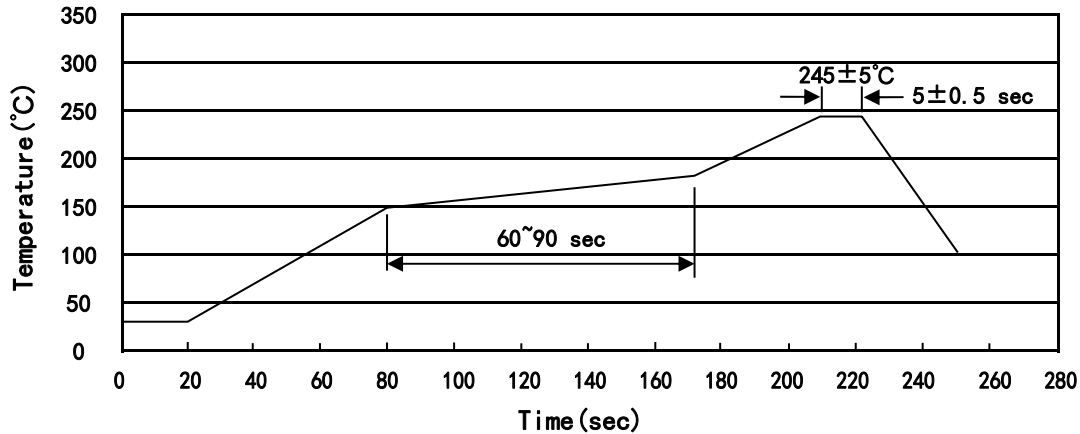
Note:

BR: Company Code

CW7805: Product Type

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

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150~180°C，时间 60~90sec;
- 2、峰值温度 245±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:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±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：260±5°C 时间：10±1 sec. Temp.:260±5°C Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-263	800	1	800	6	4,800	13" ×24	360×360×50	380×335×366

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-263	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

使用说明 / Notices