

### 描述 / Descriptions

SOT-23 塑封封装电压调整器。Voltage Regulator in a SOT-23 Plastic Package.

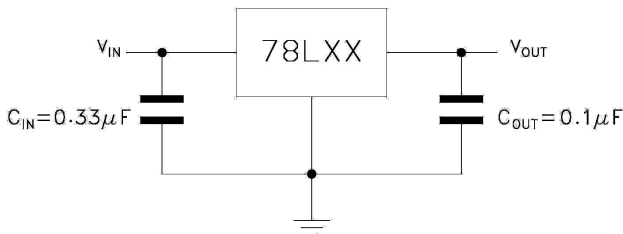
### 特征 / Features

三端稳压调整器，输出电流高达 100mA,内设过热保护和短路限制。无卤产品。  
3-Terminal regulators ,output current up to 100 mA, internal thermal overload protection and short-circuit limiting. Halogen-free Product.

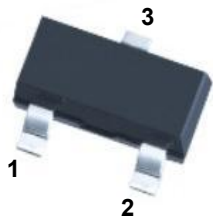
### 用途 / Applications

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



PIN 1 : VOUT      PIN 2 : VIN      PIN 3 : GND

### 印章代码 / Marking

Marking	HL05
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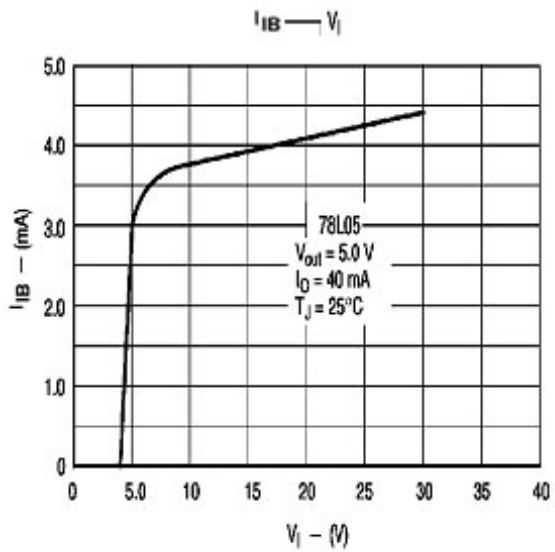
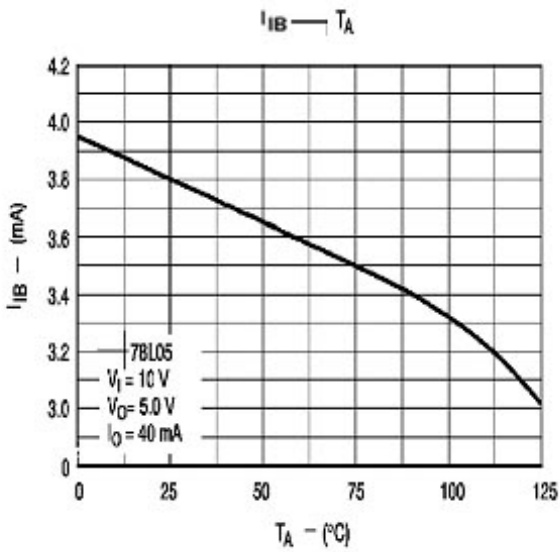
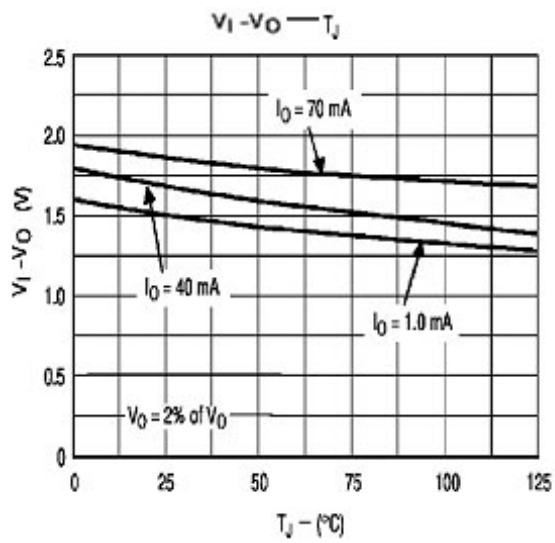
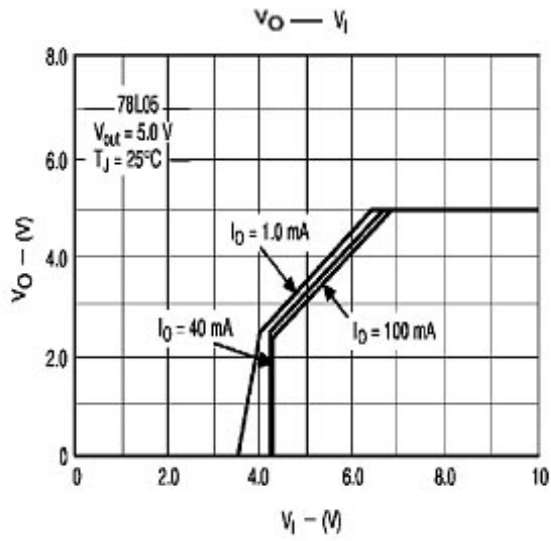
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Input voltage	$V_i$	30	V
Output current	$I_o$	100	mA
Operating virtual Junction temperature	$T_j$	0~125	°C
Power Dissipation	$P_D$	350	mW
Storage temperature range	$T_{stg}$	-65~150	°C

**电性能参数 / Electrical Characteristics(Ta=25°C , Vi=10V,Io=40mA , 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	$V_o$	$I_o=40mA$ $T_j=25^\circ C$	4.80	5.0	5.2	V
		$I_o=1mA$ to 40mA $V_i=7V$ to 20V	4.75	5.0	5.25	V
		$I_o=1mA$ to 70mA $V_i=10V$	4.75	5.0	5.25	V
Input regulation	$\Delta V_o$	$V_i=7V$ to 20V $T_j=25^\circ C$		32	150	mV
		$V_i=8V$ to 20V $T_j=25^\circ C$		26	100	mV
Output regulation	$\Delta V_o$	$I_o=1mA$ to 100mA $T_j=25^\circ C$		15	60	mV
		$I_o=1mA$ to 40 mA $T_j=25^\circ C$		8	30	mV
Ripple rejection	RR	$V_i=8V$ to 18V $f=120Hz$ $T_j=25^\circ C$	41	49		dB
Output noise voltage	$V_N$	$f=10Hz\sim 100KHz$ $T_j=25^\circ C$		42		$\mu V$
Dropout voltage	$V_D$	$T_j=25^\circ C$		1.7		V
Bias current	$I_Q$	$T_j=25^\circ C$		3.8	6	mA
		$T_j=125^\circ C$			5.5	mA
Bias current change	$\Delta I_Q$	$V_i=8V$ to 20V			1.5	mA
		$I_o=1mA$ to 40mA			0.1	mA

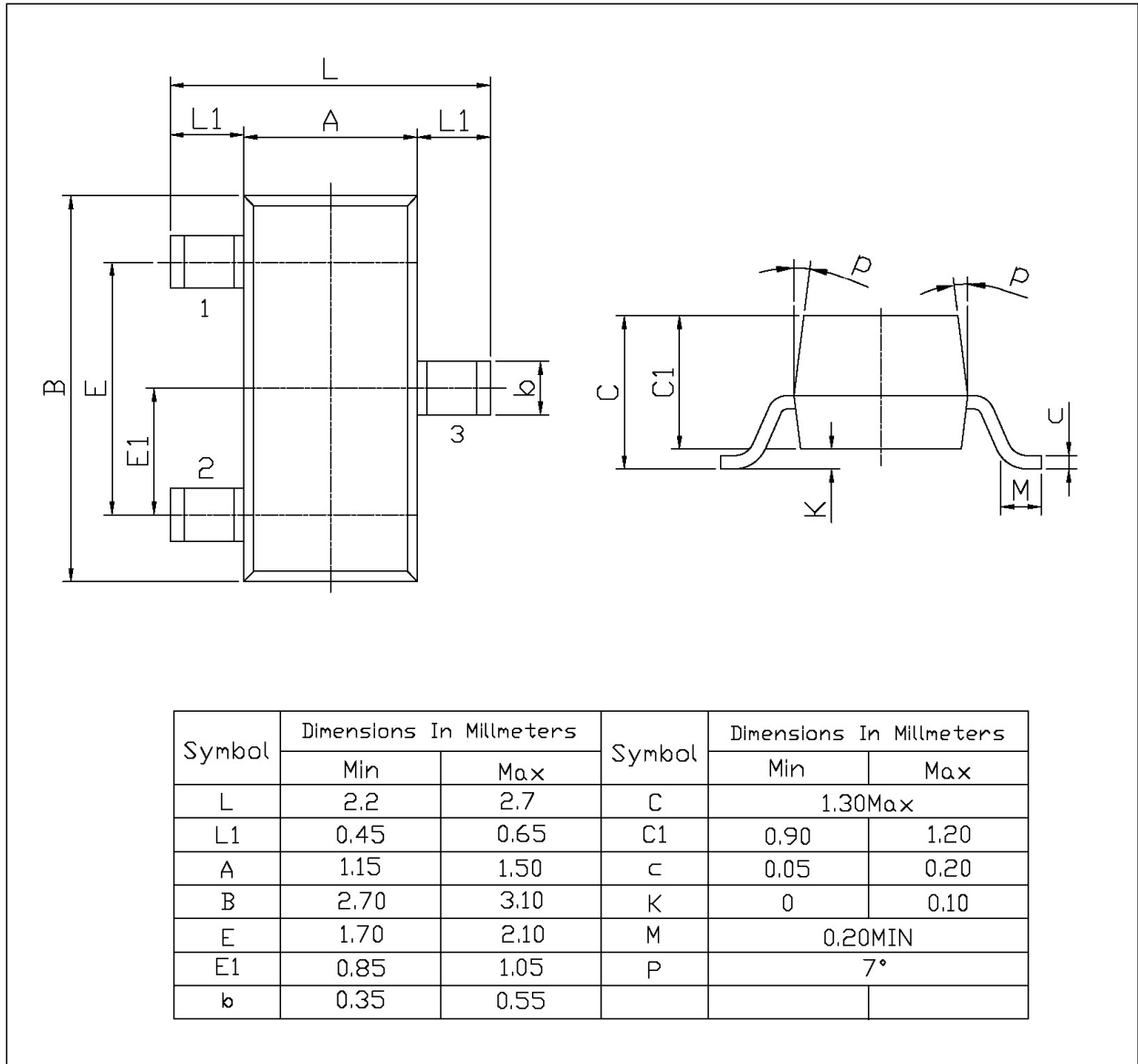
电参数曲线图 / Electrical Characteristic Curve



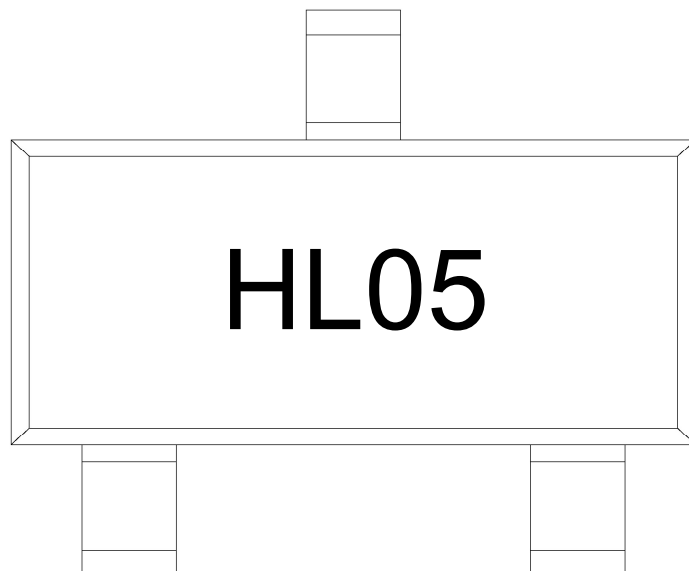
外形尺寸图 / Package Dimensions

SOT-23

单位: mm



印章说明 / Marking Instructions



说明：

H： 为公司代码

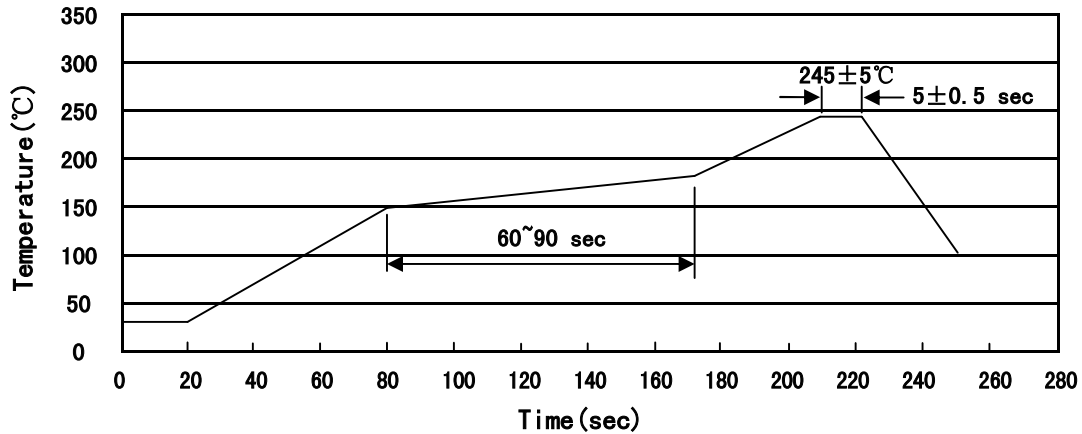
L05： 为型号代码

Note:

H: Company Code.

L05: Product Type Code.

**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 <sup>3</sup> )		
	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
SOT-23	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

**使用说明 / Notices**