

Descriptions

This is 78L05T is Voltage Regulator in a SOT-89 Plastic Package.

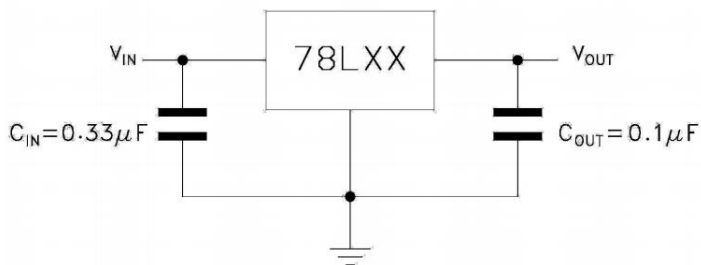
Features

- 3-Terminal regulators
- Output current up to 100 mA
- Internal thermal overload protection and short-circuit limiting
- Halogen-free product

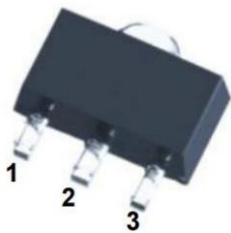
Applications

- Voltage Regulator.

Equivalent Circuit



Pinning



PIN1 : OUT

PIN 2 : GND

PIN 3 : IN

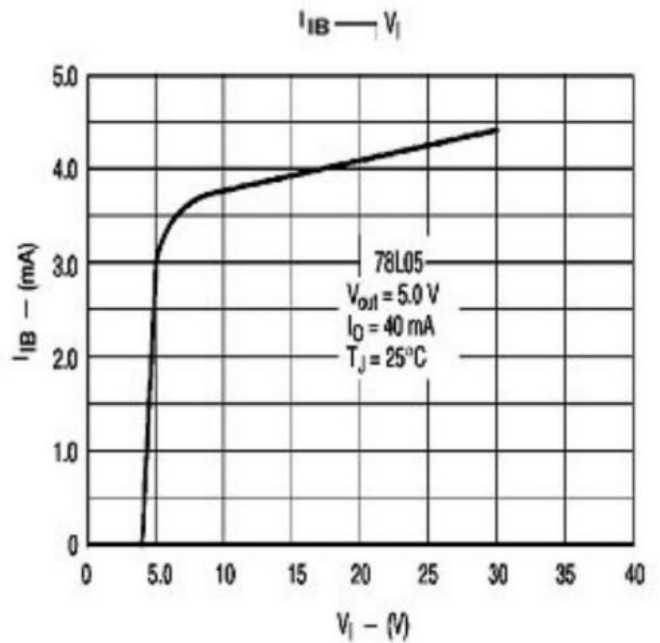
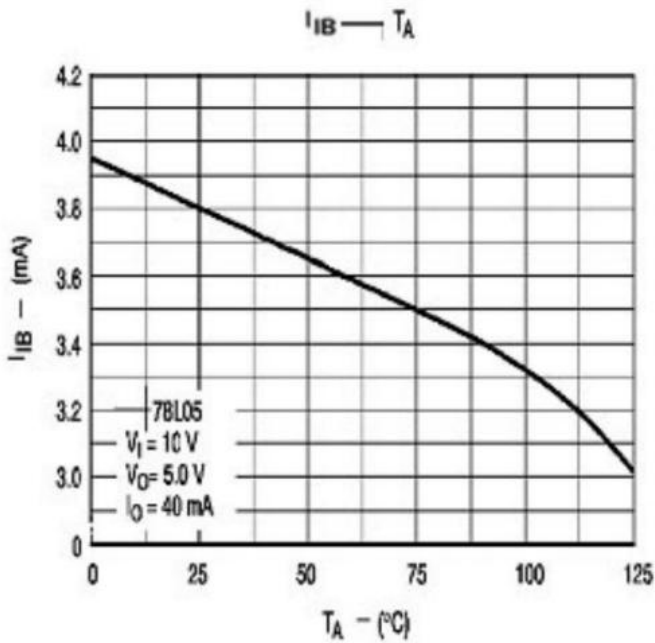
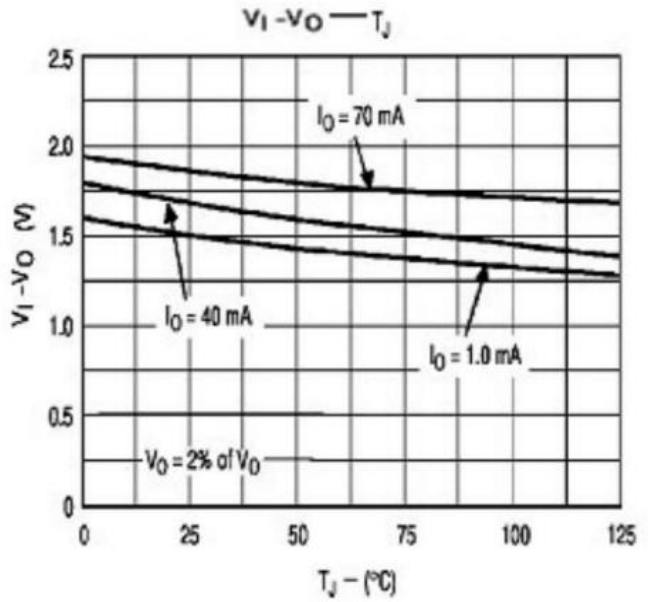
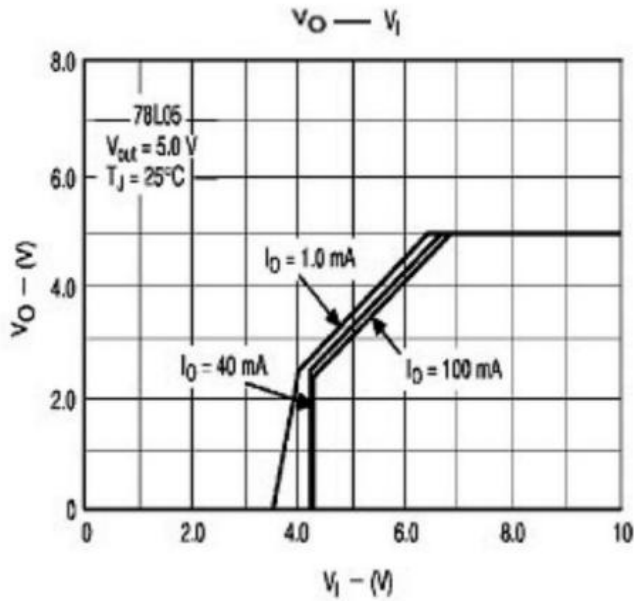
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	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	500	mW
Storage temperature range	T_{stg}	-65~150	°C

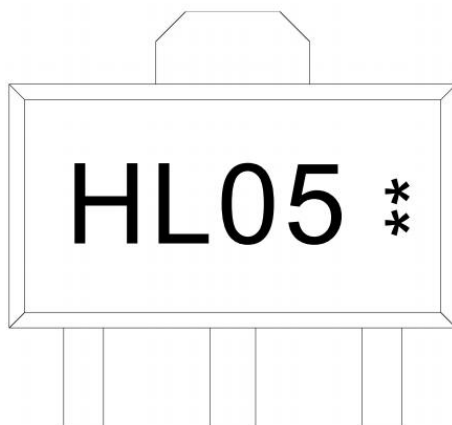
Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	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	ΔV_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	ΔV_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		μV
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	ΔI_Q	$V_I=8V$ to 20V			1.5	mA
		$I_o=1mA$ to 40mA			0.1	mA

Electrical Characteristic Curve



Marking Instructions



Note:

H: Company Code.

L05: Product Type Code.

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

Packaging SPEC.

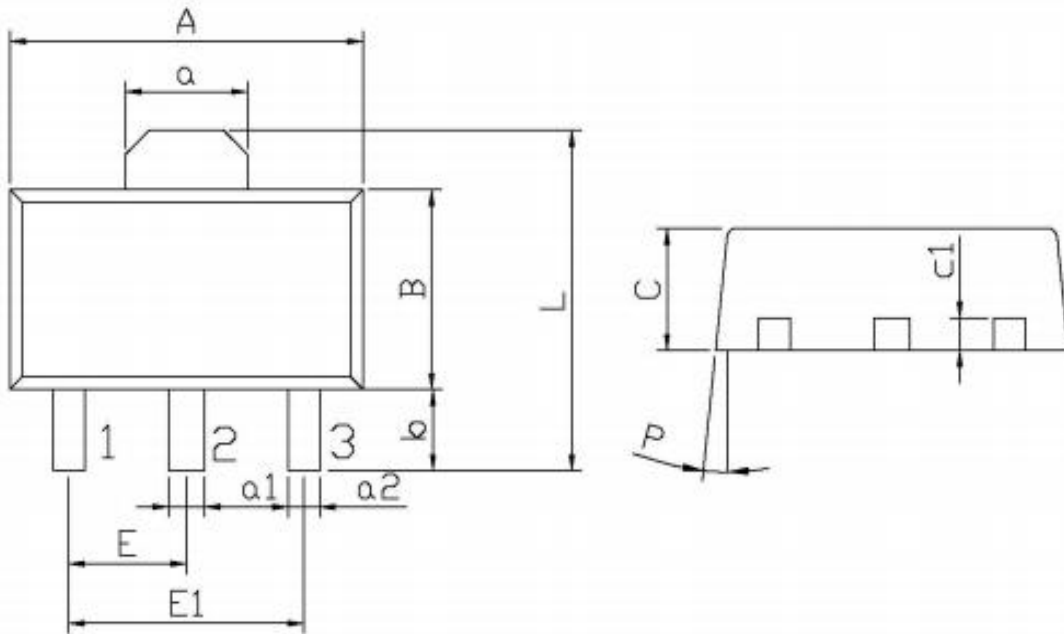
REEL

Package Type	Units					Dimension (unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-89	1,000	7	7,000	6	42,000	7" ×12	180×120×180	390×385×205

Package Dimensions

SOT-89

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	4.4	4.7	a1	0.36	0.56
B	2.35	2.65	a2	0.30	0.50
L	3.878	4.478	C	1.40	1.70
a	1.45	1.65	c1	0.35	0.50
E	1.40	1.60	P	6°	
E1	2.80	3.20			
b	0.80	1.20			