

/ Descriptions

Voltage Regulator in a TO-92 Plastic Package.

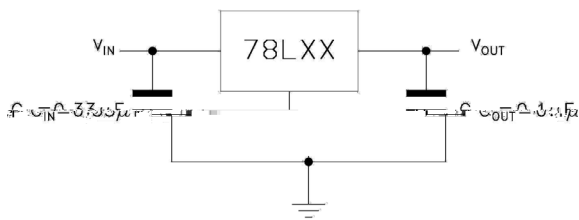
/ Features

3-Terminal regulators ,output current up to 100 mA, internal thermal overload protection and short-circuit limiting.

/ Applications

Voltage Regulator.

/ / Equivalent Circuit or Application Circuit



/ Pinning



1 2 3
PIN1 IN PIN 2 GND PIN 3 OUT

/ Marking

See Marking Instructions

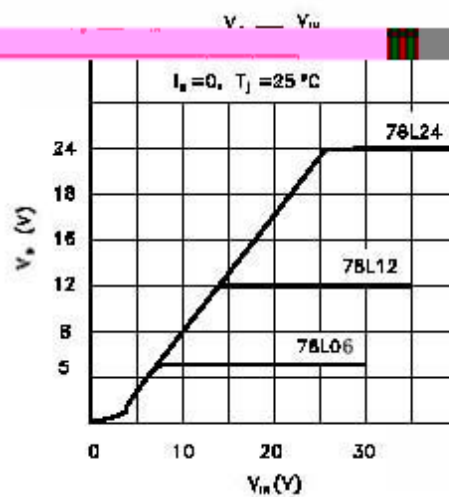
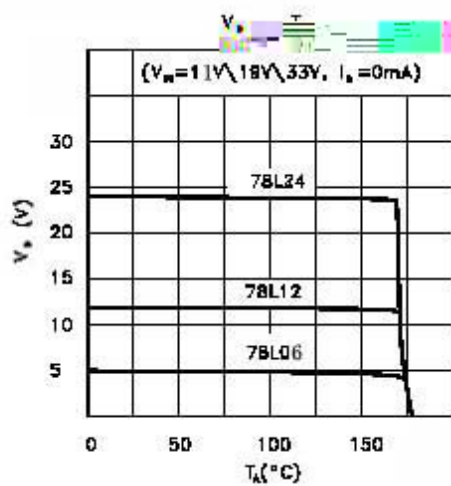
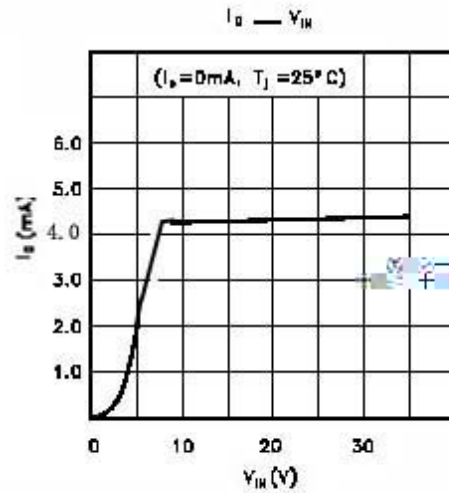
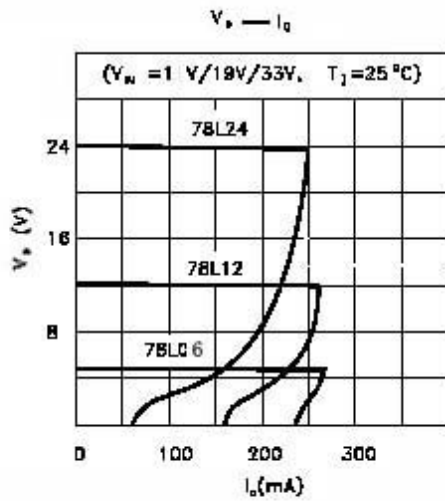
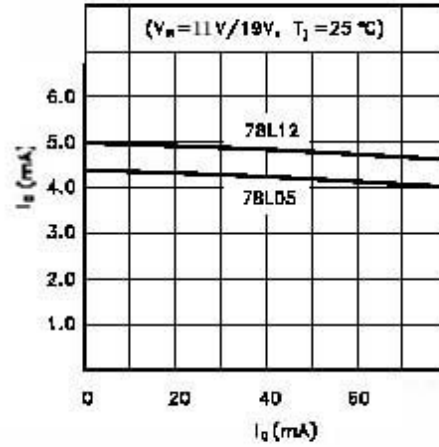
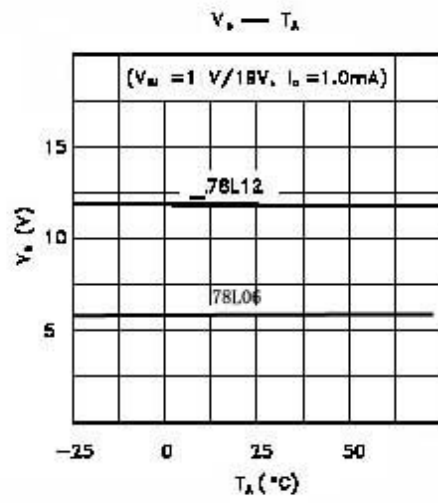
/ Absolute Maximum Ratings(Ta=25)

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 $V_I=11V, I_O=40mA$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_O	$I_O=40mA$ $T_J=25^\circ C$	5.75	6.0	6.25	V
		$I_O=1mA$ to 40mA $V_I=8V$ to 20V	5.7	6.0	6.3	V
		$I_O=1mA$ to 70mA $V_I=11V$	5.7	6.0	6.3	V
Input regulation	ΔV_O	$V_I=8V$ to 20V $T_J=25^\circ C$		35	150	mV
		$V_I=9V$ to 20V $T_J=25^\circ C$		29	100	mV
Ripple rejection	RR	$V_I=9V$ to 19V $f=120Hz$ $T_J=25^\circ C$	40	48		dB
Output regulation	ΔV_O	$I_O=1mA$ to 100mA $T_J=25^\circ C$		16	60	mV
		$I_O=1mA$ to 40Ma $T_J=25^\circ C$		9	30	mV
Output noise voltage	V_N	$f=10Hz-100KHz$ $T_J=25^\circ C$		46		μV
Dropout voltage	V_D	$T_J=25^\circ C$		1.7		V
Bias current	I_Q	$T_J=25^\circ C$		3.9	6	mA
		$T_J=125^\circ C$			5.5	mA
Bias current change	ΔI_Q	$V_I=9V$ to 20V			1.5	mA
		$I_O=1mA$ to 40mA			0.1	mA

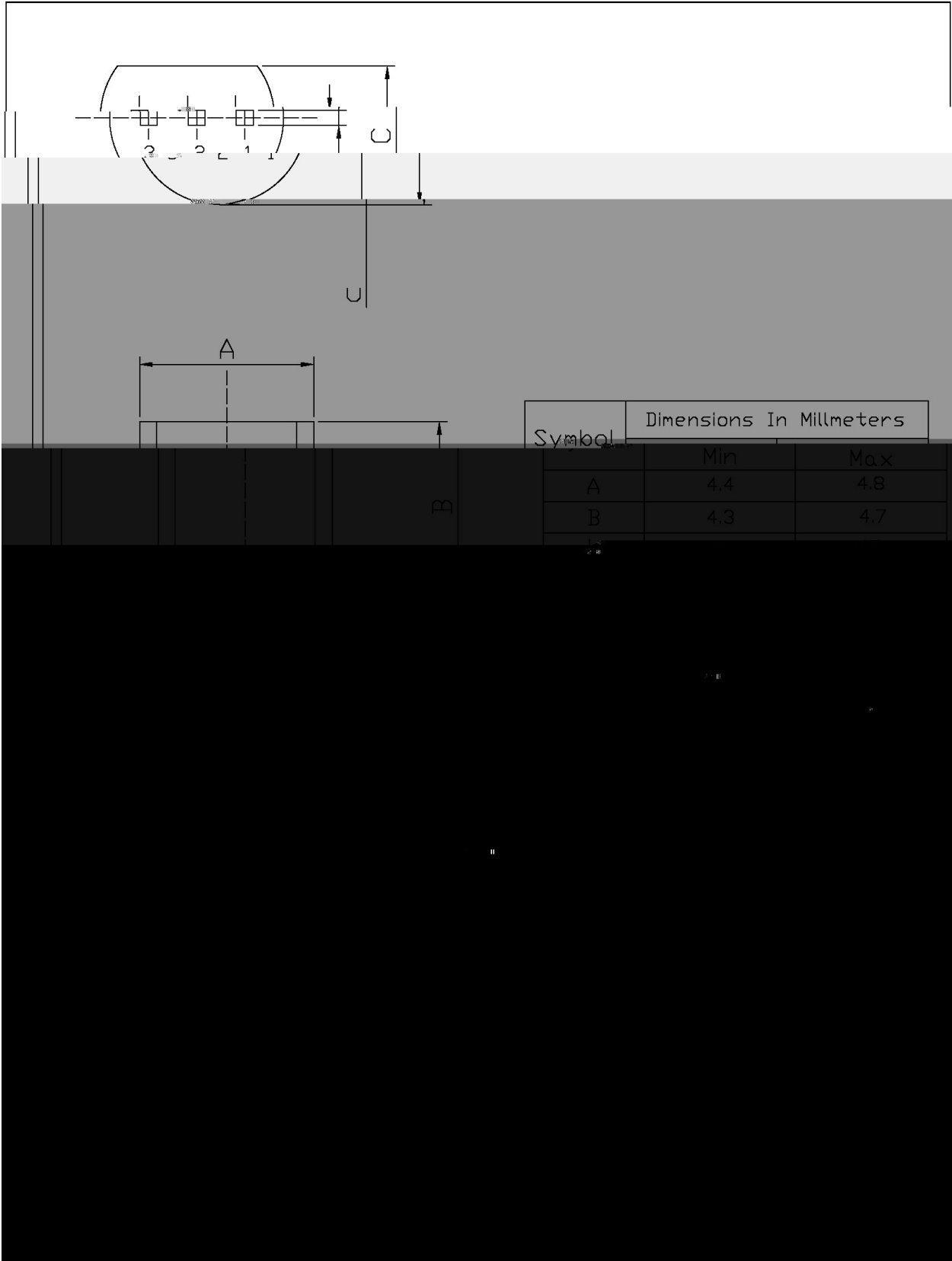
/ Electrical Characteristic Curve



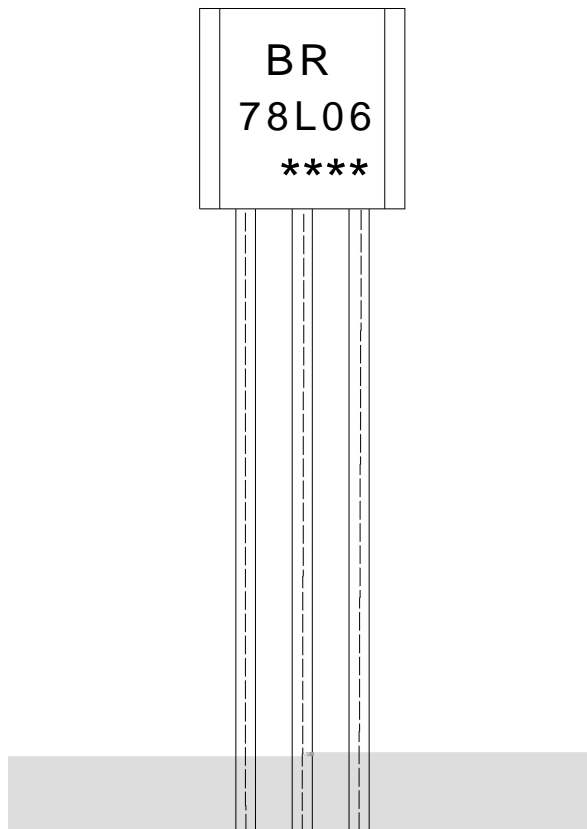
/ Package Dimensions

TO-92

Unit: mm



/ Marking Instructions



BR

78L06

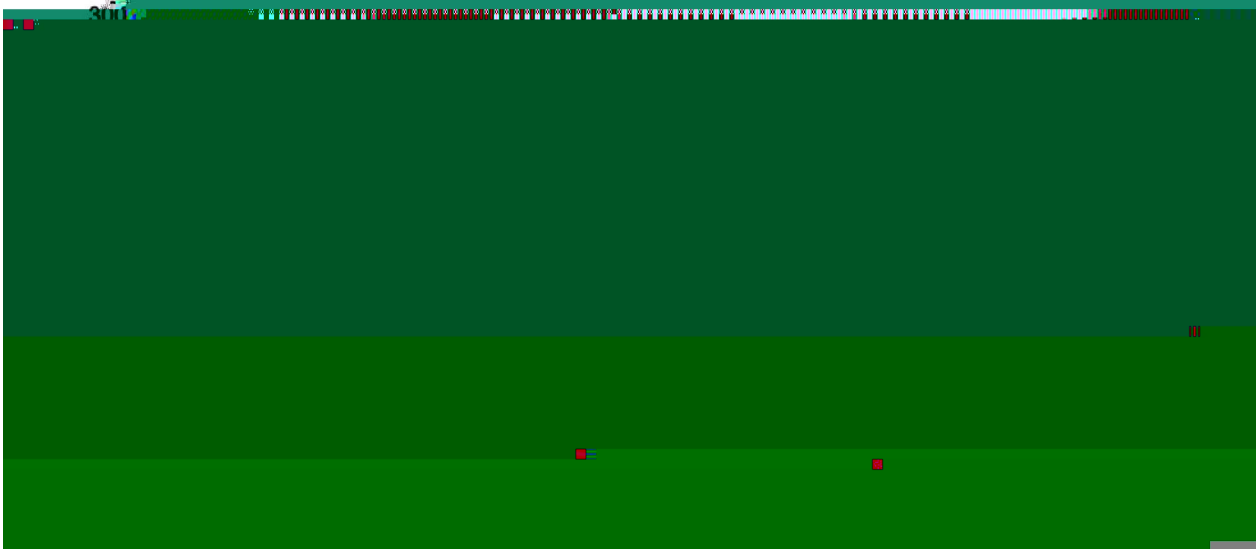
Note:

BR: Company Code.

78L06: Product Type.

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

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

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

/ Resistance to Soldering Heat Test Conditions

270 5 10 1 sec. Temp:270±5℃ Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units					Dimension (unit mm3)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-92	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195
	1,000	10	10,000	10	100,000	135×190	237×172×102	560×245×375

/ AMMO

Package Type	Units					Dimension (unit mm3)	
	Units/tape /	Tape/Inner Box /	Rows/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Inner Box	Outer Box
TO-92	3,000	1	120	10	30,000	328×230×42	480×346×235 547×407×268

/ Notices