

/ Descriptions

TO-92 Voltage Regulator in a TO-92 Plastic Package.

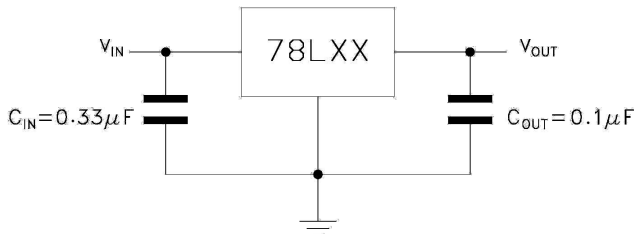
/ Features

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

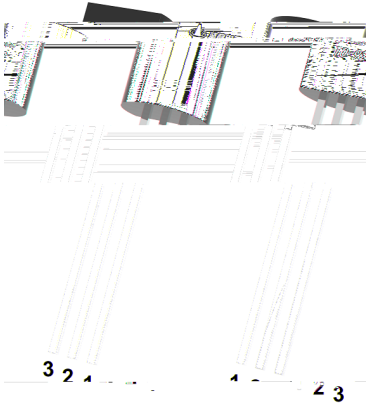
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN PIN 2 GND PIN 3 OUT

/ Marking

See Marking Instructions.

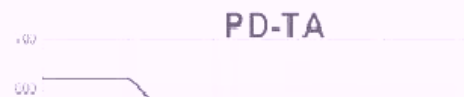
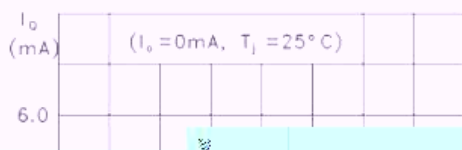
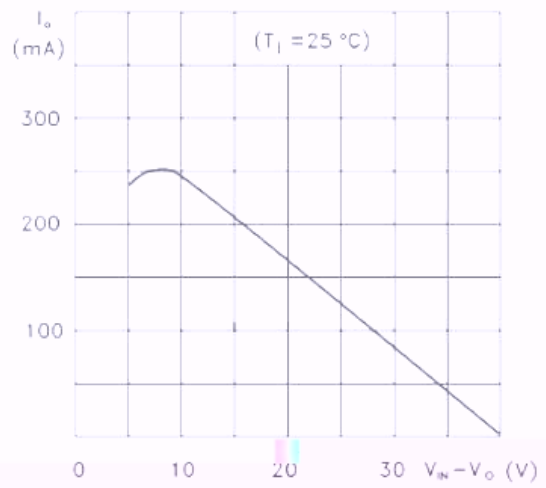
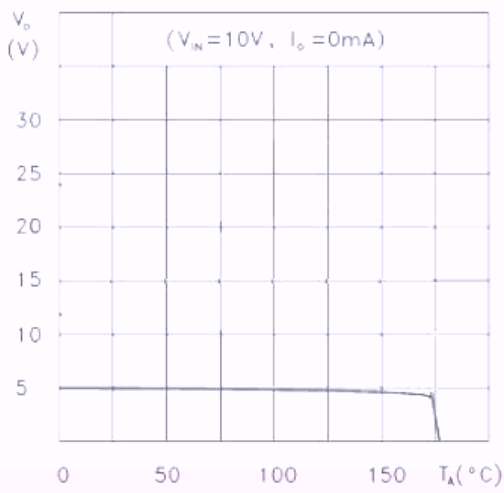
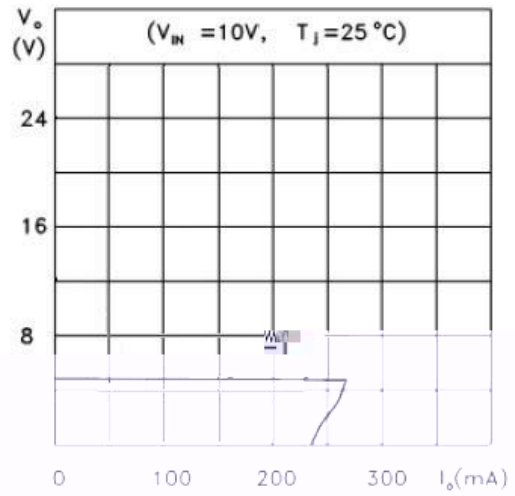
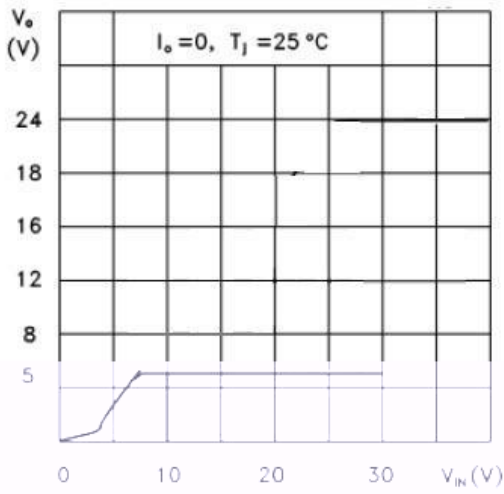
/ Absolute Maximum Ratings($T_a=25$)

Parameter	Symbol	Rating	Unit
Input voltage	V_I	35	V
Output current	I_O	100	mA
Operating Temperature Range	T_{OPR}	-40 125	
Power Dissipation	P_D	500	mW
Storage temperature range	T_{stg}	-65 150	

/ Electrical Characteristics($T_a=25$ $V_I=23V, I_O=40mA$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_O	$I_O=40mA$ $T_j=25$	14.4	15	15.6	V
		$I_O=1mA$ to 40mA $V_I=17.5V$ to 30V	14.25		15.75	V
		$I_O=1mA$ to 70mA $V_I=23V$	14.25		15.75	V
Input regulation	V_O	$V_I=17.5V$ $T_j=25$			300	mV
		$V_I=20V$ $T_j=25$			250	mV
Ripple rejection	RR	$V_I=18.5V$ to 28.5V $T_j=25$ $f=120Hz$	34	39		dB
Output regulation	V_O	$I_O=1mA$ to 100mA $T_j=25$			150	mV
		$I_O=1mA$ to 40mA $T_j=25$			75	mV
Output noise voltage	V_N	$f=10Hz$ to 100KHz $T_j=25$		90		V
Dropout voltage	V_D	$T_j=25$		1.7		V
Bias current	I_Q	$T_j=25$			6.5	mA
		$T_j=125$			6	mA
Bias current change	I_Q	$V_I=20V$ to 30V			1.5	mA
		$I_O=1mA$ to 40mA			0.1	mA

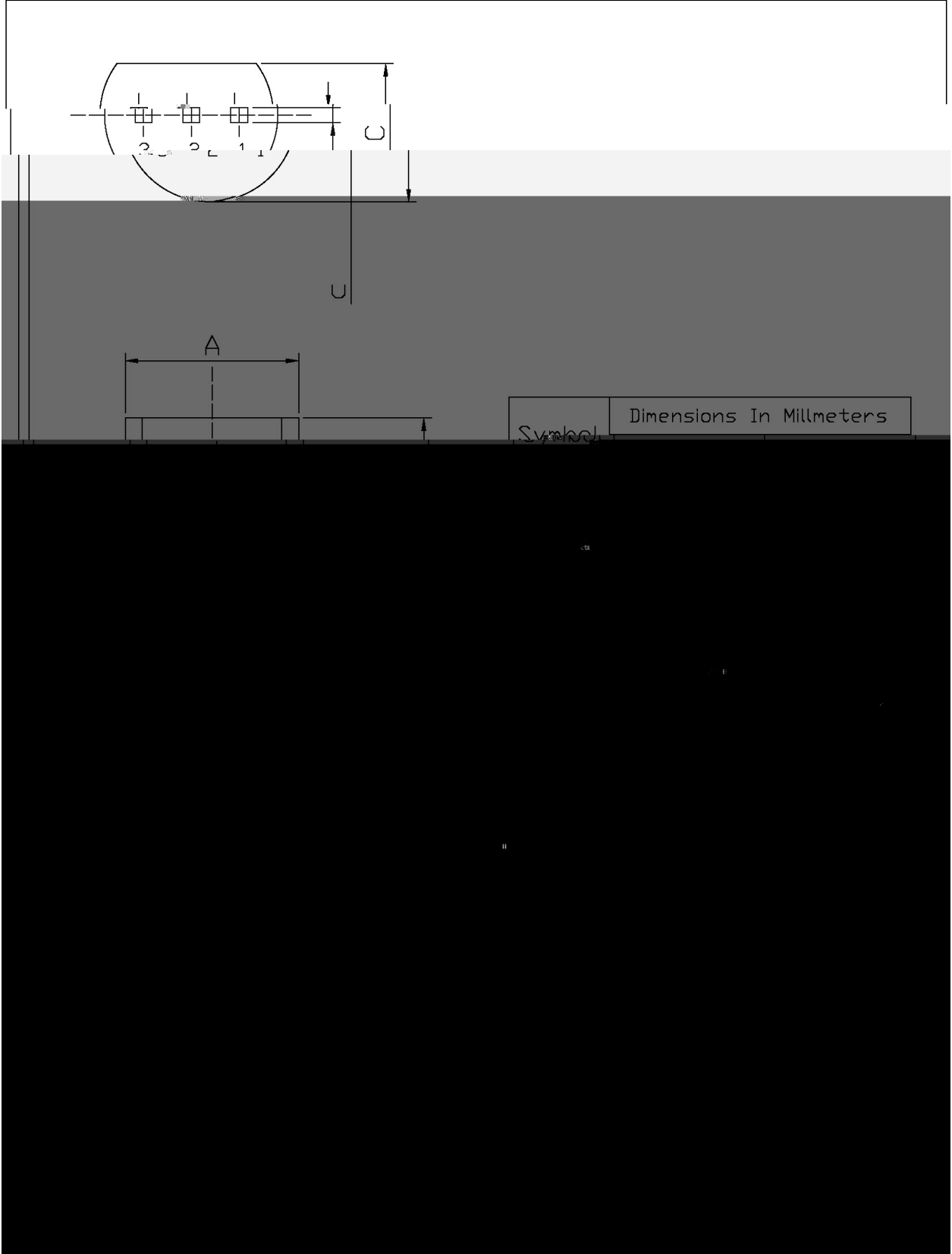
/ Electrical Characteristic Curve



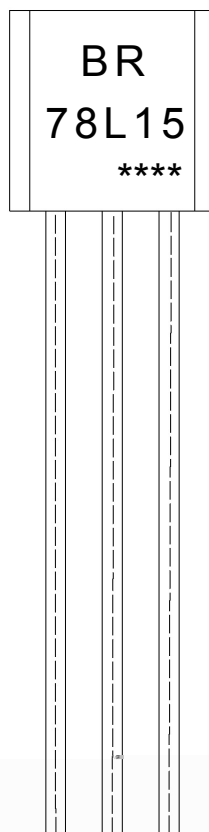
/ Package Dimensions

TO-92

Unit: mm



/ Marking Instructions



BR

78L15

Note:

BR: Company Code

78L15: Product Type

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

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

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