

**/ Descriptions**

TO-220 Voltage Regulator in a TO-220 Plastic Package.

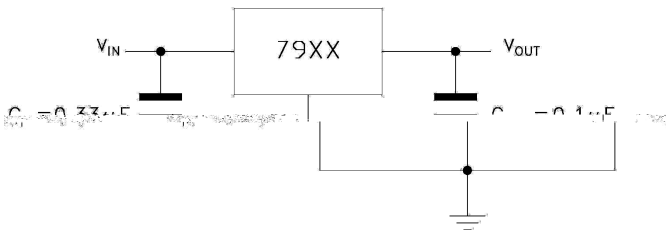
**/ Features**

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

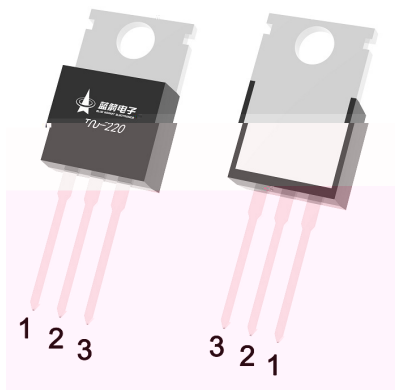
**/ Applications**

Voltage Regulator.

**/ Equivalent Circuit or Application Circuit**



**/ Pinning**



PIN1 GND    PIN 2 IN    PIN 3 OUT

**/ Marking**

See Marking Instructions.

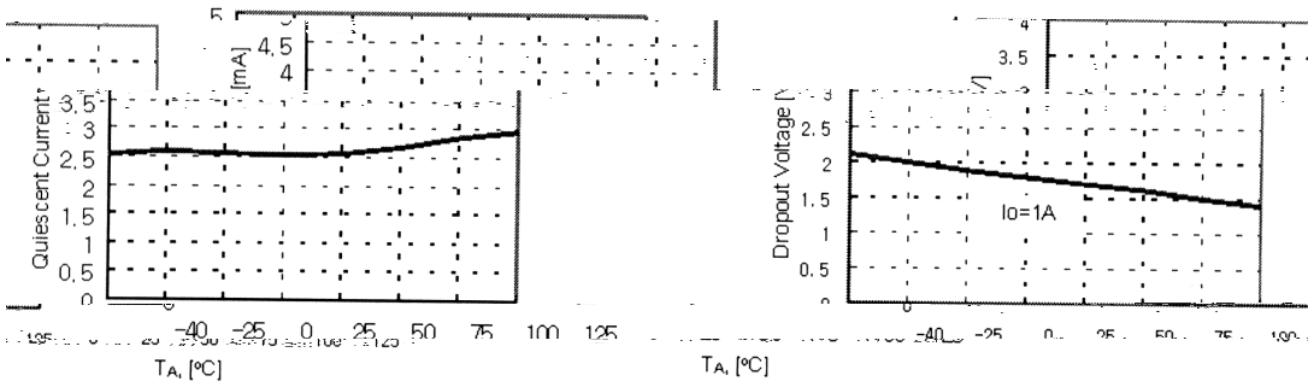
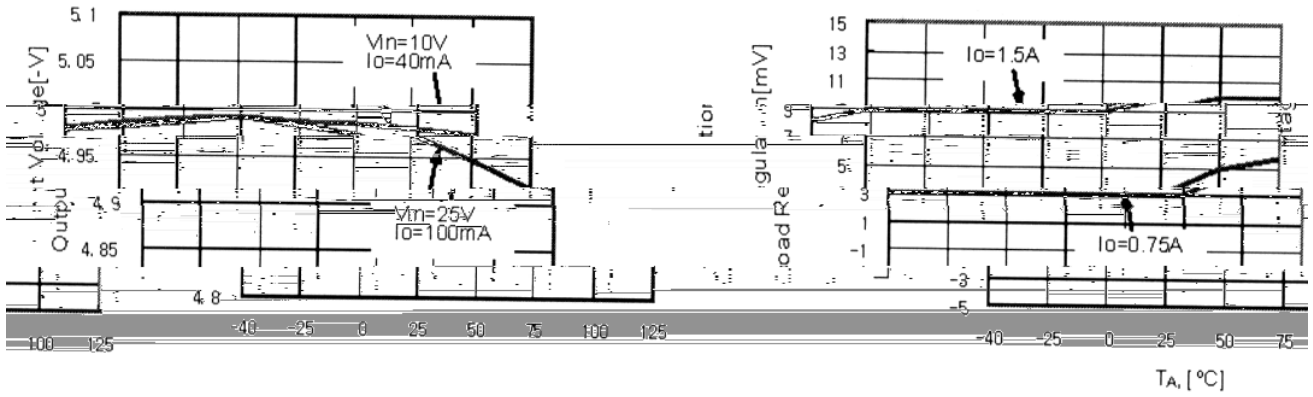
## / Absolute Maximum Ratings(Ta=25 )

Parameter	Symbol	Rating	Unit
Input Voltage Difference	$V_i$	-35	V
Junction-to-Ambient	$R_{JA}$	62.5	/W
Junction-to-Case	$R_{JC}$	8.9	/W
Operating Temperature Range	$T_{OPR}$	-40 125	
Storage temperature range	$T_{stg}$	-65 150	

## / Electrical Characteristics(Ta=25 )

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Line regulation	$V_o$	$T_j=25$	-4.8	-5.0	-5.2	V
		$V_i=8$ to 20V, $I_o=-5$ mA to -1A, $P_o$ 15W	-4.75	-5.0	-5.25	
Load Regulation	$V_o$	$T_j=25$ $I_o=5$ mA to 1.5A			100	mV
		$T_j=25$ $I_o=250$ mA to 750mA			50	
Load Regulation	$V_o$	$T_j=25$ $V_i=-7$ V to -25V			100	mV
		$T_j=25$ $V_i=-8$ V to -12V			50	
Bias current	$I_d$	$T_j=25$			8.0	mA
Bias current change	$I_d$	$V_i=-8$ V to -25V			0.8	mA
		$I_o=5$ mA to 1A			0.5	mA
Ratio of Change in VREF to Cathode Voltage	$V_o/ T$	$I_o=5$ mA		-0.4		mV/
RMS Noise vs. %of VOUT	eN	B=10Hz to 100KHz $T_j=25$		100		$\mu$ V
Ripple Rejection	SVR	$V_i=10$ V $f=120$ Hz	54	60		dB
Dropout voltage	$V_d$	$I_o=1$ A $T_j=25$ $V_o=100$ mV		1.4		V
Short Circuit Current Limit	Isc			2.1		A

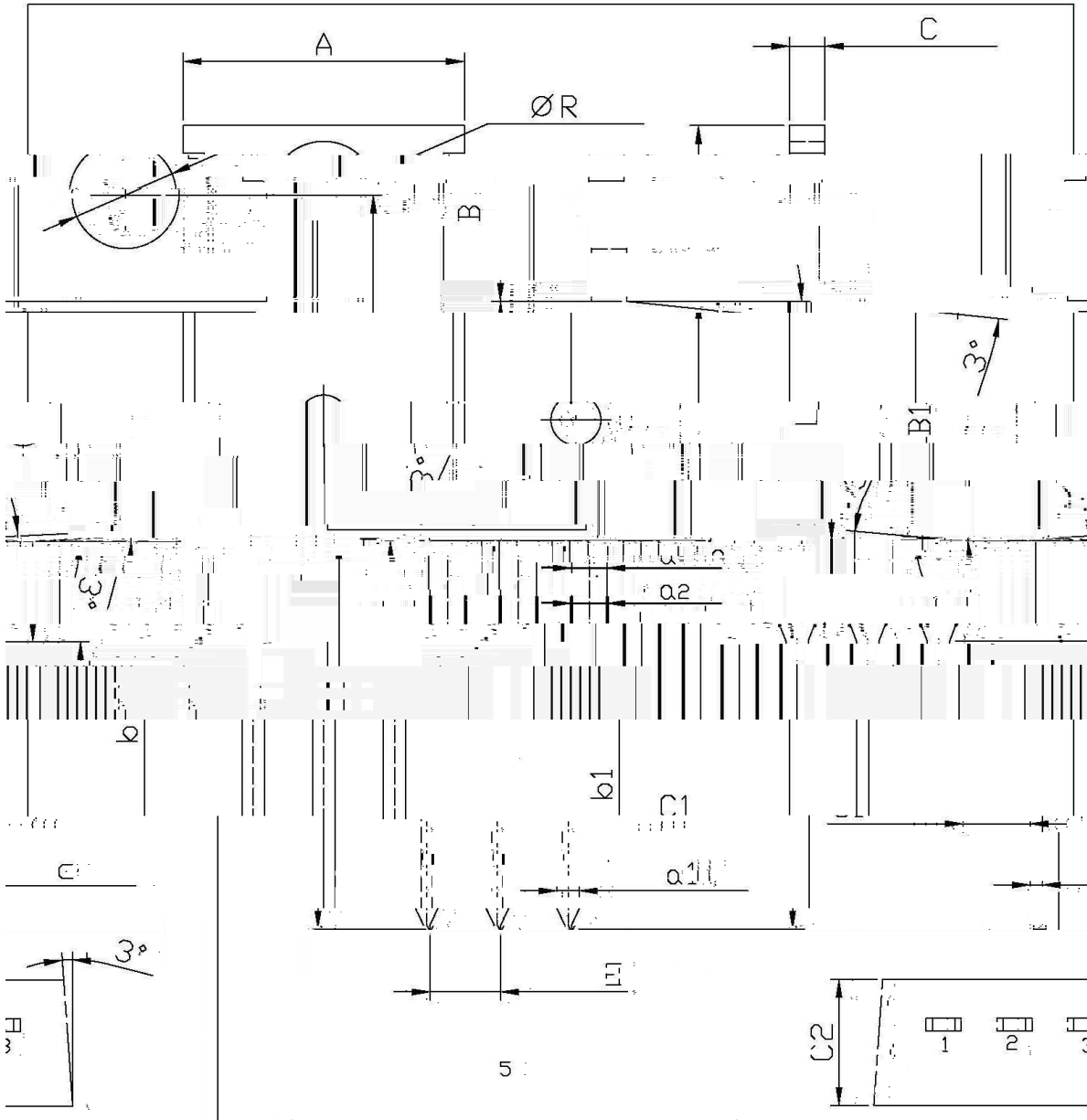
/ Electrical Characteristic Curve



/ Package Dimensions

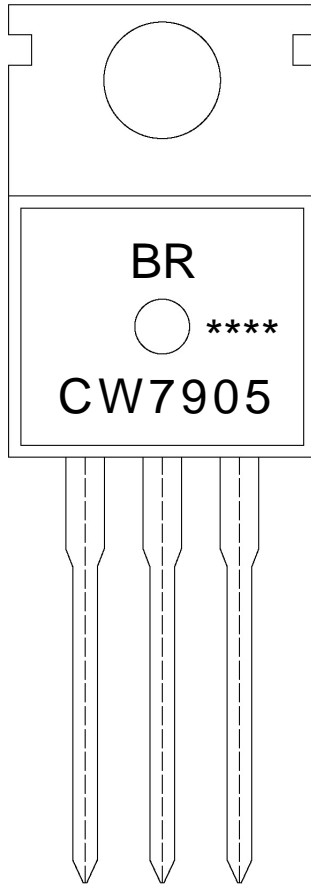
TO-220

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	9.8	10.2	C	12	14
R	3.56	3.64	B	6.3	6.7
L	15.7	16.1	B1	9.0	9.4
b	12.6	13.6	C1	2.2	2.6

/ Marking Instructions



BR

CW7905

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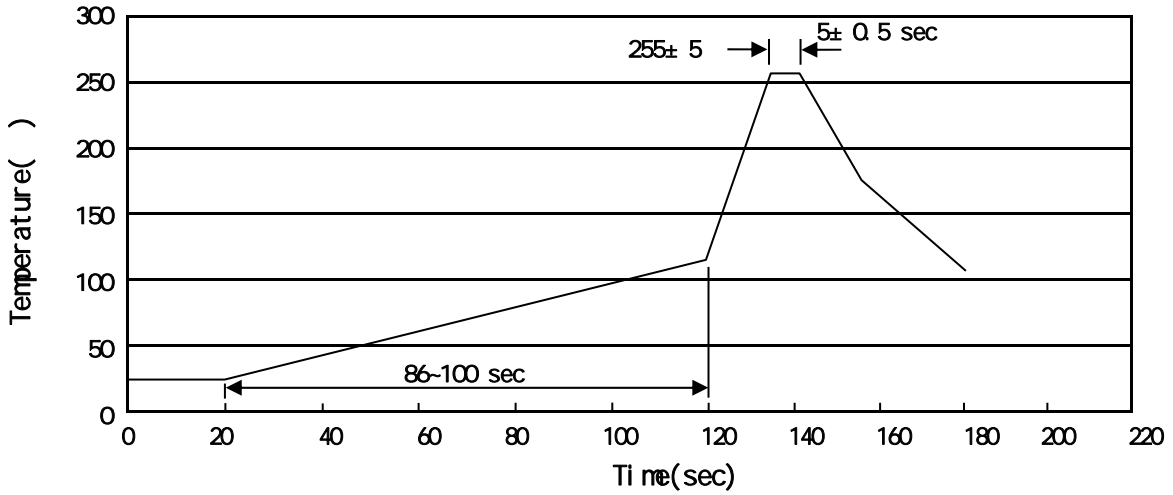
Note:

BR: Company Code

CW7905: Product Type Code

\*\*\*\*: 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 mm <sup>3</sup> )		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135x190	237x172x102	560x245x195

/ TUBE

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532x31.4x5.5	555x164x50	575x290x180

/ Notices