

/ Descriptions

TO-220

Voltage Regulator in a TO-220 Plastic Package.

/ Features

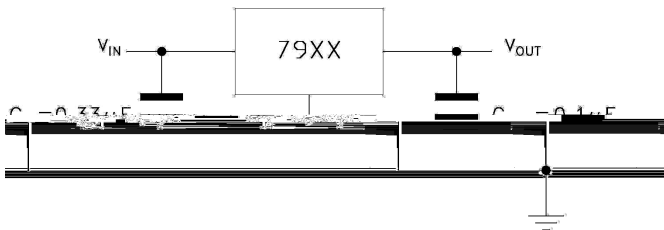
1.5A,

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

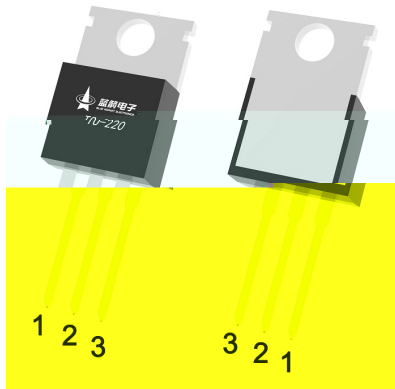
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 GND

PIN 2 IN

PIN 3 OUT

/ Marking

See Marking Instructions.

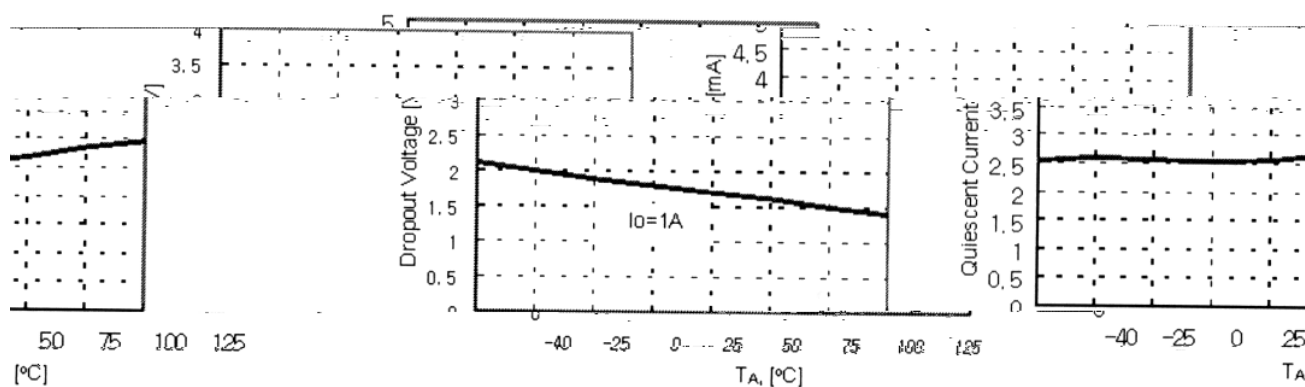
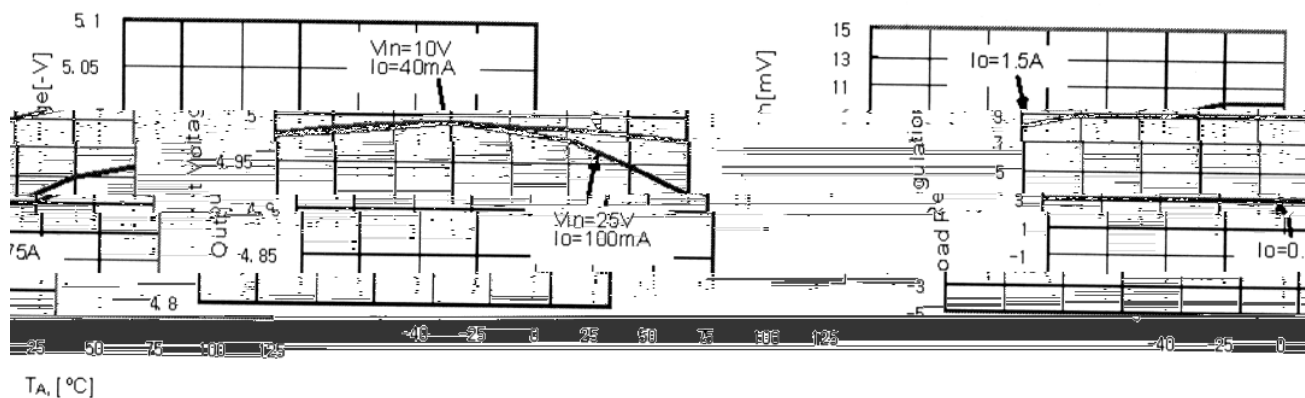
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Input Voltage Difference	V_I	-35	V
Junction-to-Ambient	$R_{\theta JA}$	62.5	/W
Junction-to-Case	$R_{\theta JC}$	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, $I_o=-5mA$ to -1A, $P_o \leq 15W$	-4.75	-5.0	-5.25	
Load Regulation	V_o	$T_j=25$ $I_o=5mA$ to 1.5A			100	mV
		$T_j=25$ $I_o=250mA$ to 750mA			50	
Load Regulation	V_o	$T_j=25$ $V_i=-7V$ to -25V			100	mV
		$T_j=25$ $V_i=-8V$ to -12V			50	
Bias current	I_d	$T_j=25$			8.0	mA
Bias current change	I_d	$V_i=-8V$ to -25V			0.8	mA
		$I_o=5mA$ to 1A			0.5	mA
Ratio of Change in VREF to Cathode Voltage	V_o/ T	$I_o=5mA$		-0.4		mV/
RMS Noise vs. %of VOUT	eN	B=10Hz to 100KHz $T_j=25$		100		μV
Ripple Rejection	SVR	$V_i=10V$ $f=120Hz$	54	60		dB
Dropout voltage	V_d	$I_o=1A$ $T_j=25$ $V_o=100mV$		1.4		V
Short Circuit Current Limit	Isc			2.1		A

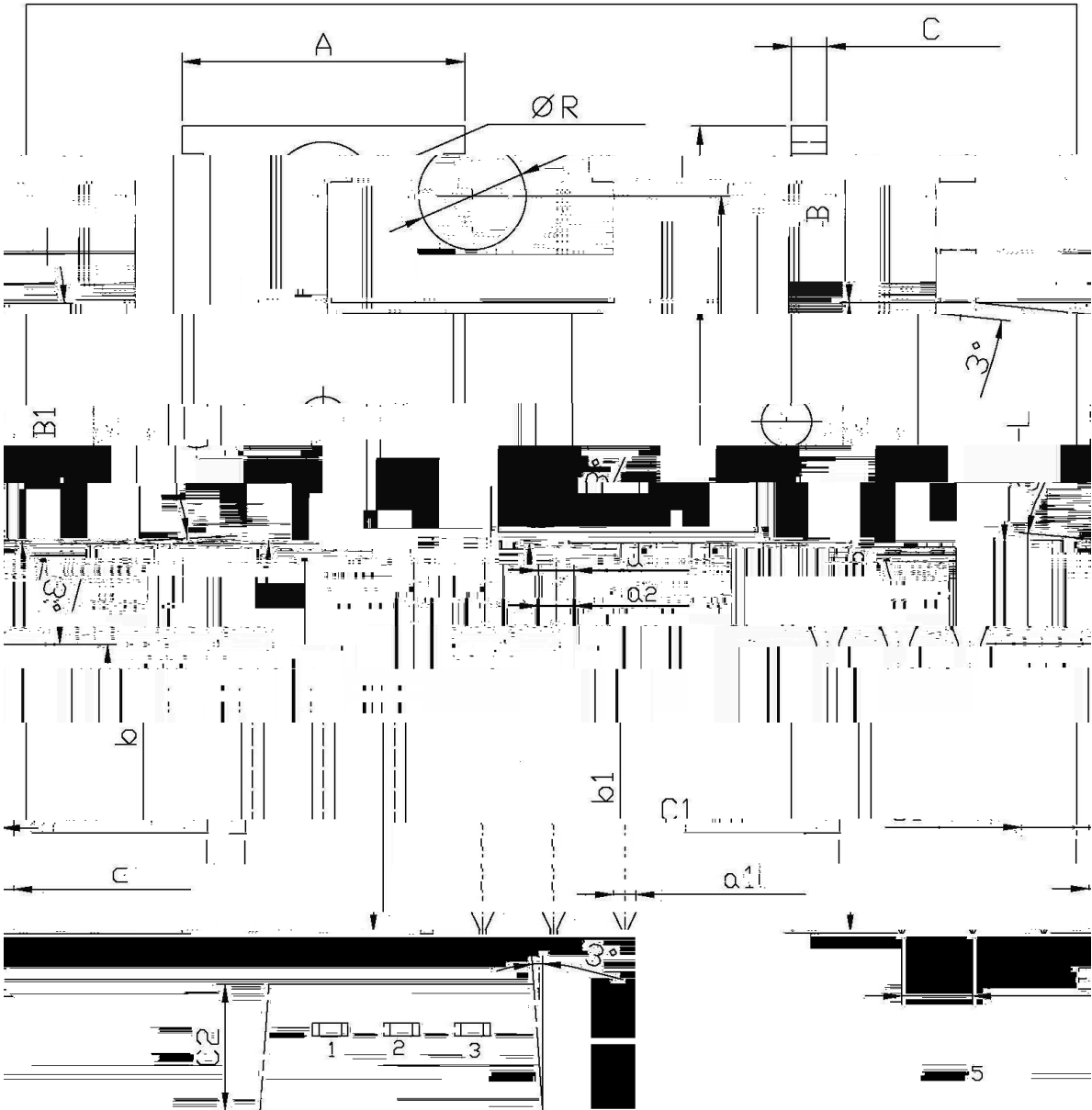
/ Electrical Characteristic Curve



/ Package Dimensions

TQ-220

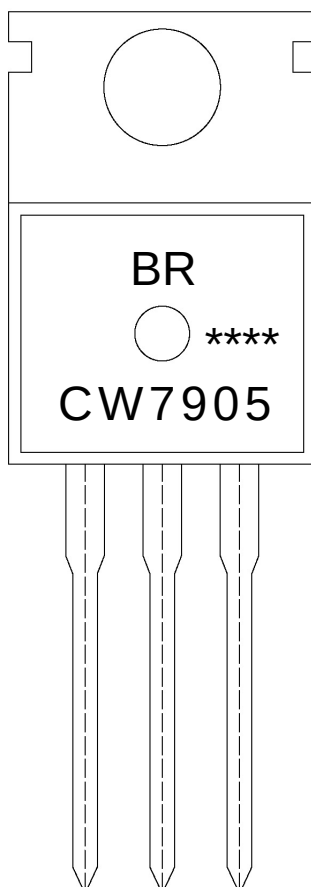
单位: mm



Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	9.8	10.2	C	1.2	1.4
R	3.56	3.64	B	6.3	6.7
B1	15.7	16.1	B1	9.0	9.4
C1	12.6	13.6	C1	2.2	2.6



/ Marking Instructions



BR

CW7905

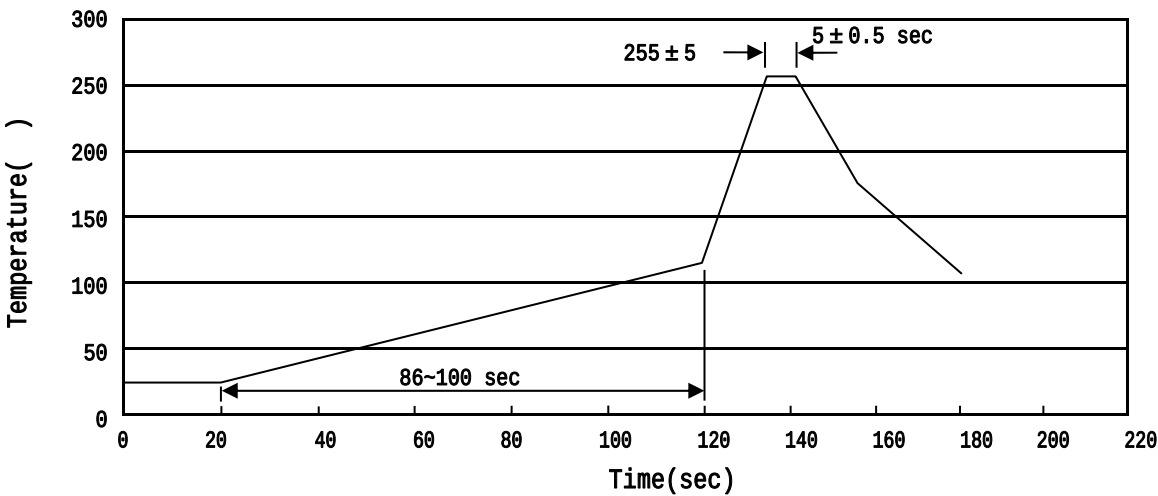
Note:

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 °C , Time:60~90sec.
- 2

255±5

5±0.5sec;

2.Peak Temp.:255±5 °C , Duration:5±0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 °C /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 ³)		
	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	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	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	532×31.4×5.5	555×164×50	575×290×180

/ Notices