

/ Descriptions

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

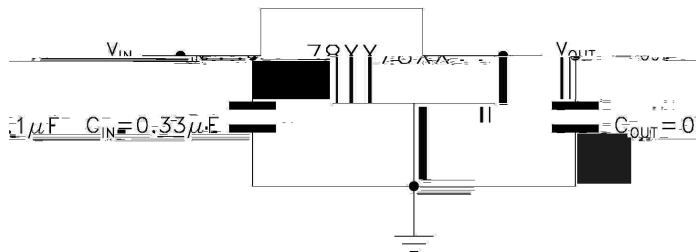
/ Features

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

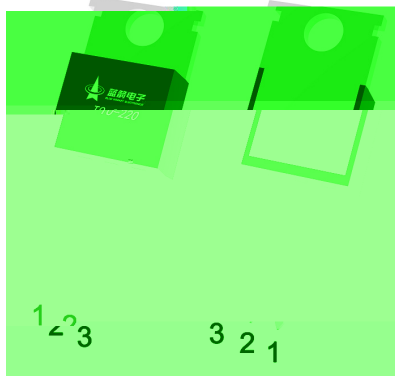
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN

PIN 2 GND

PIN 3 OUT

/ Marking

See Marking Instructions.

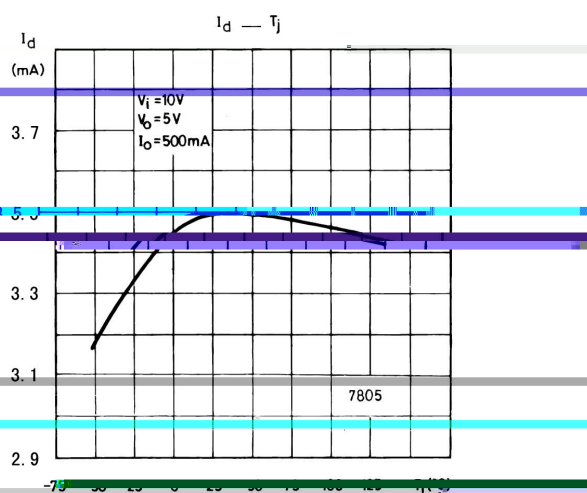
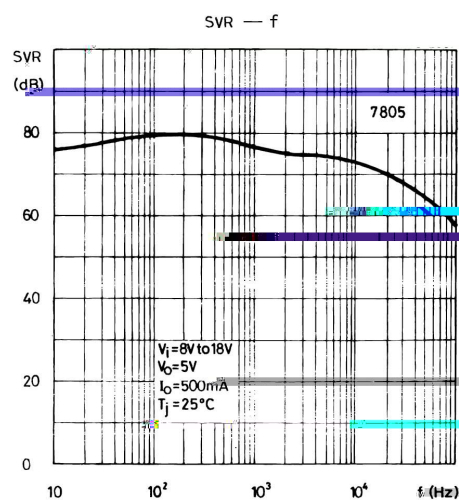
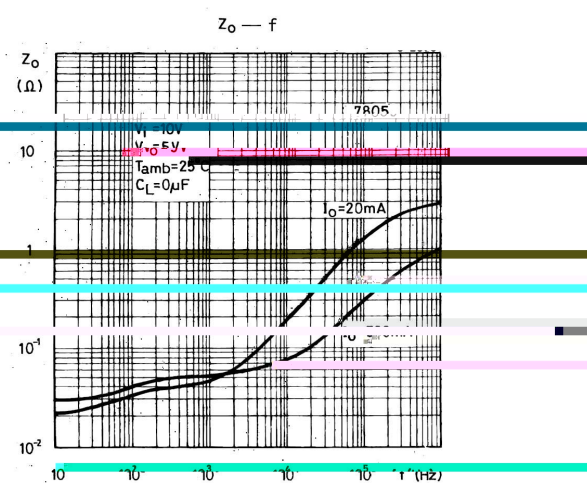
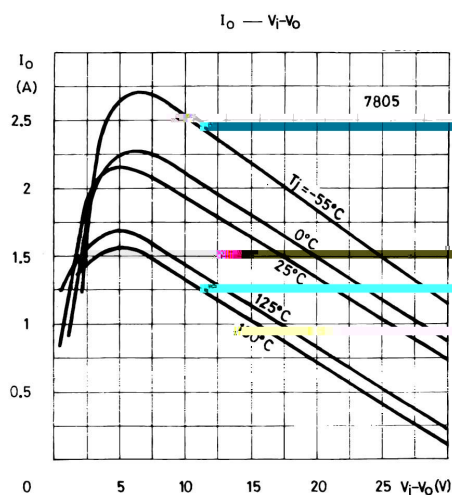
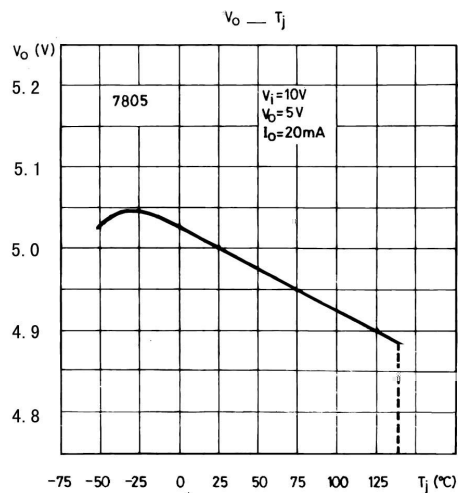
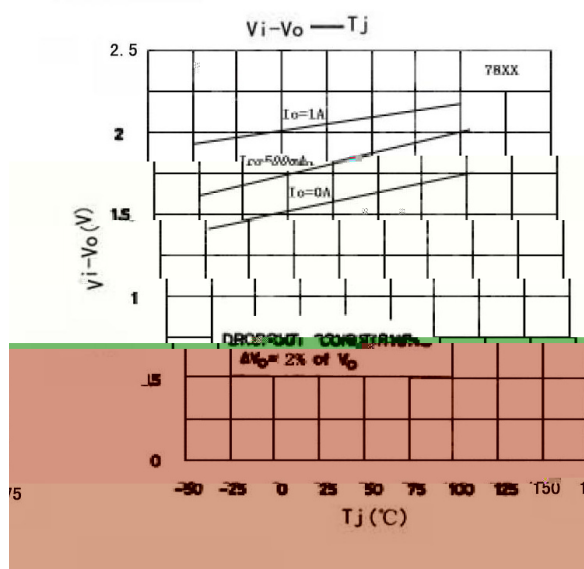
/ Absolute Maximum Ratings($T_a=25$)

Parameter	Symbol	Rating	Unit
Input voltage	V_i	35	V
Thermal Resistance Junction-ambient	$R_{\theta JA}$	62.5	/W
Thermal Resistance Junction-case	$R_{\theta JC}$	5.0	/W
Operating Temperature Range	T_{OPR}	-40 125	
Storage temperature range	T_{stg}	-65 150	

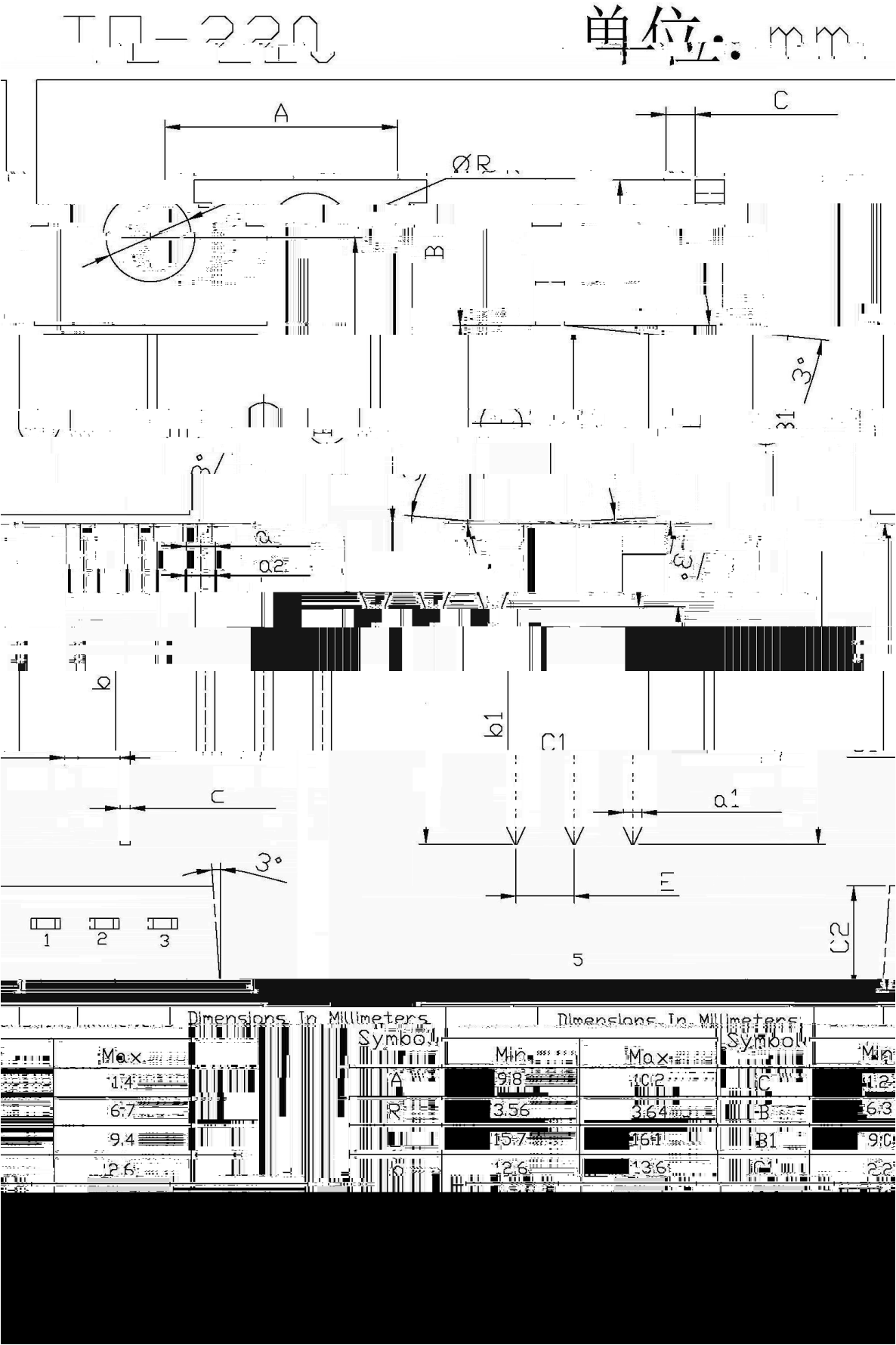
/ Electrical Characteristics($T_a=25$ $V_i=10V, I_o=500mA$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_j=25$	4.8	5.0	5.2	V
		$V_i=7V-20V$ $I_o=5mA-1A$ $P_o \leq 15W$	4.75	5.0	5.25	V
Load Regulation	V_{Load}	$T_j=25$ $I_o=5mA-1.5A$			100	mV
		$T_j=25$ $I_o=250mA-750mA$			50	mV
Line Regulation	V_{Line}	$T_j=25$ $V_i=7V-25V$		3.0	100	mV
		$T_j=25$ $V_i=8V-12V$		1.0	50	mV
Quiescent Current	I_q	$T_j=25$			8.0	mA
Quiescent Current Change	I_q	$V_i=7V-25V$			0.8	mA
		$I_o=5mA-1A$			0.5	mA
Output Voltage Drift	V_o / T	$I_o=5mA$		-1.1		mV/
Output Noise Voltage	eN	B=10Hz-100KHz $T_j=25$			40	$\mu V/V_o$
Supply Voltage Rejection	SVR	$V_i=8V-18V$ $f=120Hz$	62			dB
Dropout Voltage	V_d	$I_o=1A$ $T_j=25$		2.0		V
Output Resistance	R_o	$f=1KHz$		17		$m\Omega$
Short Circuit Current	I_{sc}	$V_i=35V$ $T_j=25$		0.75		A
Short Circuit Peak Current	I_{scp}	$T_j=25$		2.2		A

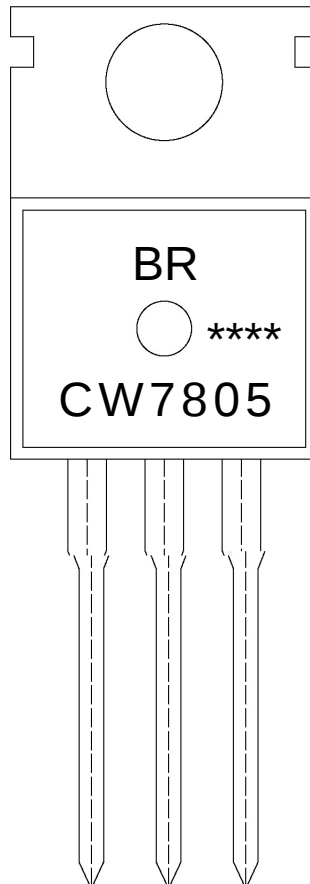
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

CW7805

Note:

BR: Company Code

CW7805: Product Type Code

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

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

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Note:

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|---|-----|-----|----|----------|---|
| 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 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