

/ Descriptions

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

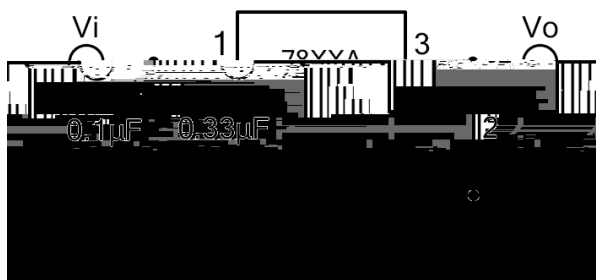
/ Features

1.0A,
3-Terminal regulators ,output current up to 1.0A, internal thermal overload protection and short-circuit limiting.

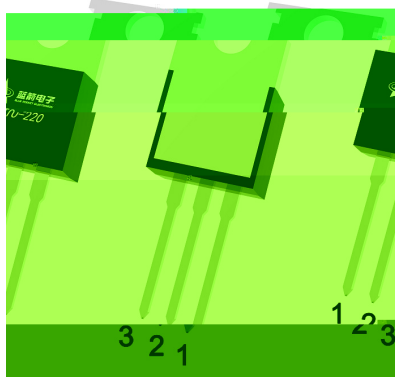
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN PIN 2 GND PIN 3 OUT

/ Marking

See Marking Instructions.

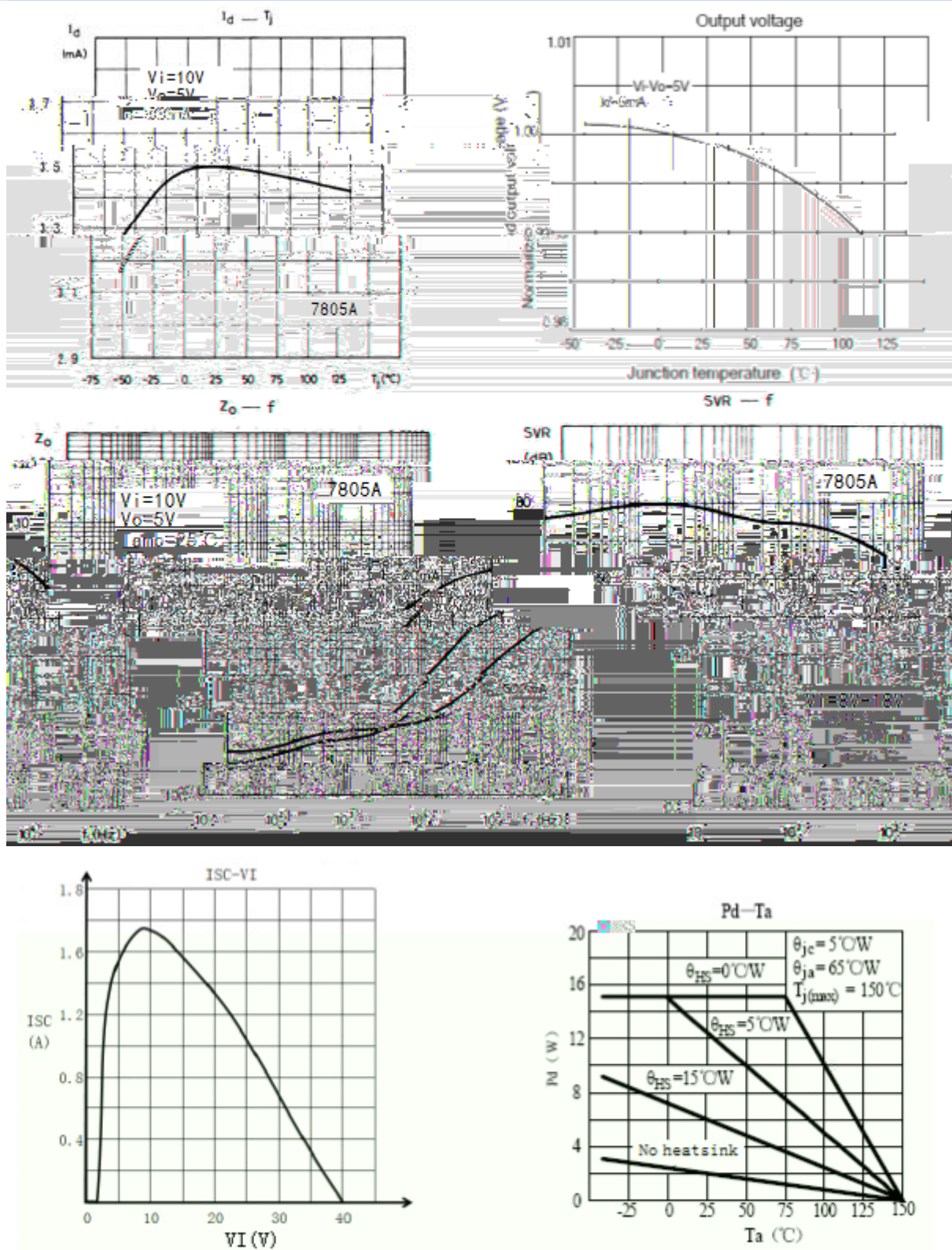
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Input voltage	V_i	7~35	V
Power Dissipation	P_D	Internally Limited	W
Thermal Resistance Junction-ambient	$R_{\theta JA}$	65	$^{\circ}\text{C}/\text{W}$
Thermal Resistance Junction-case	$R_{\theta JC}$	5.0	$^{\circ}\text{C}/\text{W}$
Operating Temperature Range	T_{OPR}	-40 ~ 125	
Storage temperature range	T_{stg}	-65 ~ 150	

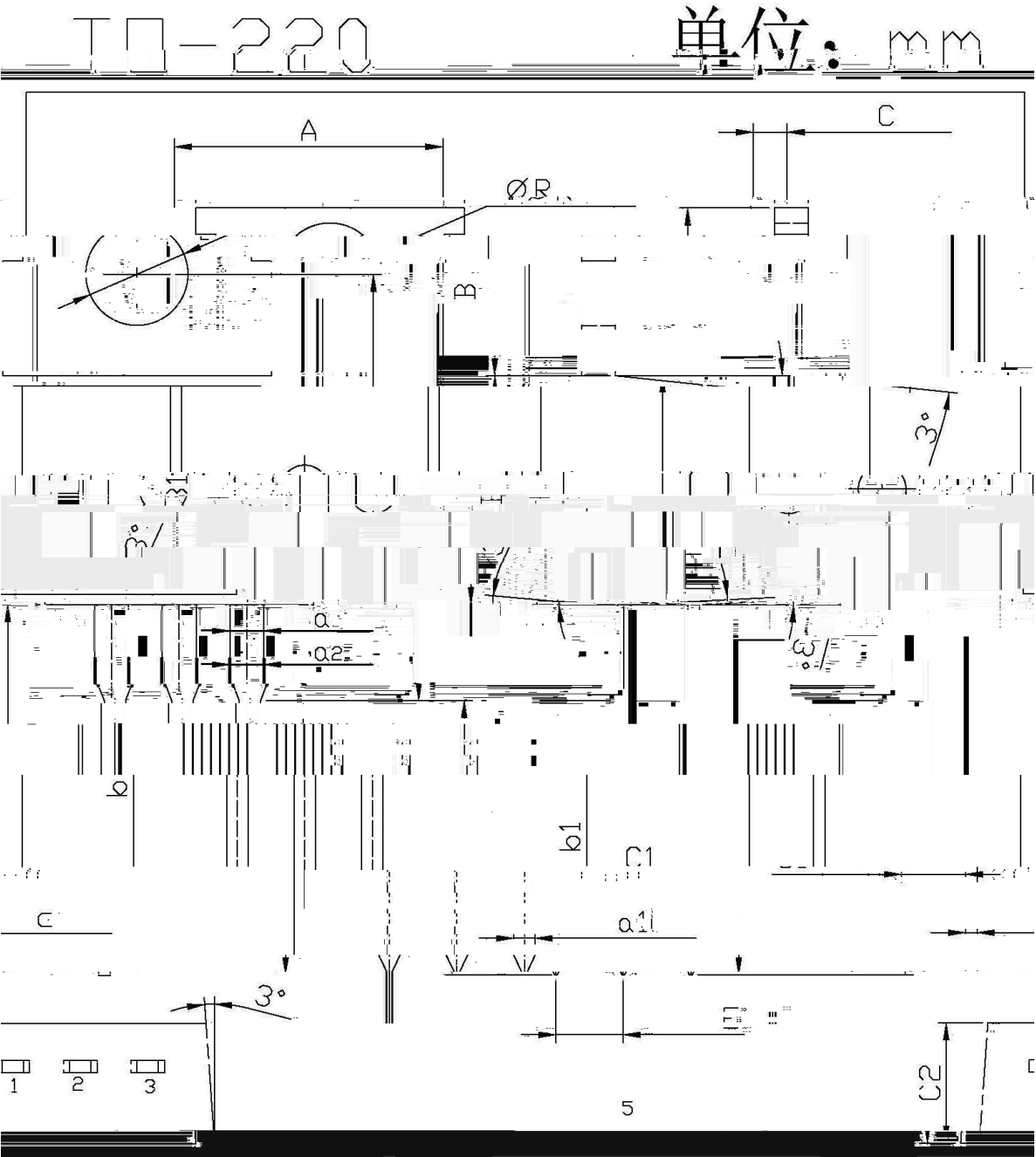
/ Electrical Characteristics($V_i=10\text{V}, I_o=500\text{mA}, T_j=-30^\circ\text{C} \sim 125^\circ\text{C}$, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_j=25^\circ\text{C}$	4.8	5.0	5.2	V
		$V_i=7\text{V} \sim 20\text{V}$ $I_o=5\text{mA} \sim 1.0\text{A}$ $P_D \leq 15\text{W}$	4.75	5.0	5.25	V
Load Regulation	V_{Load}	$T_j=25^\circ\text{C}$ $I_o=5\text{mA} \sim 1.0\text{A}$			100	mV
		$T_j=25^\circ\text{C}$ $I_o=250\text{mA} \sim 750\text{mA}$			50	mV
Line Regulation	V_{Line}	$T_j=25^\circ\text{C}$ $V_i=7\text{V} \sim 25\text{V}$			100	mV
		$T_j=25^\circ\text{C}$ $V_i=8\text{V} \sim 12\text{V}$			50	mV
Quiescent Current	I_q	$T_j=25^\circ\text{C}$			8.0	mA
Quiescent Current Change	I_q	$V_i=7\text{V} \sim 25\text{V}$			0.8	mA
		$I_o=5\text{mA} \sim 1.0\text{A}$			0.5	mA
Output Voltage Drift	V_o / T	$I_o=5\text{mA}$ $T_j=0 \sim 125^\circ\text{C}$		-0.4		mV/ $^{\circ}\text{C}$
Output Noise Voltage	eN	B=10Hz~100KHz $T_j=25^\circ\text{C}$		42		$\mu\text{V}/V_o$
Supply Voltage Rejection	SVR	$V_i=8\text{V} \sim 18\text{V}$ $f=120\text{Hz}$	62			dB
Dropout Voltage	V_d	$I_o=1.0\text{A}$ $T_j=25^\circ\text{C}$		2.0		V
Output Resistance	R_o	$f=1\text{KHz}$		15		$\text{m}\Omega$
Short Circuit Current	Isc	$V_i=35\text{V}$ $T_j=25^\circ\text{C}$		220		mA

/ Electrical Characteristic Curve



/ Package Dimensions



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
a	15.7	16.1	B1	9.0	9.4
a1	12.6	12.9	C1	0.6	0.8



/ Marking Instructions

