

/ Descriptions

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

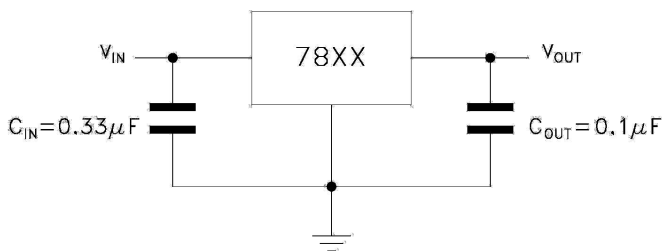
/ Features

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

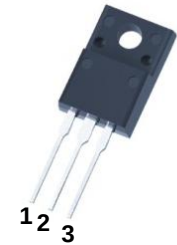
/ Applications

Voltage Regulator.

/ / Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN PIN 2 GND PIN 3 OUT

/ Marking

See Marking Instructions

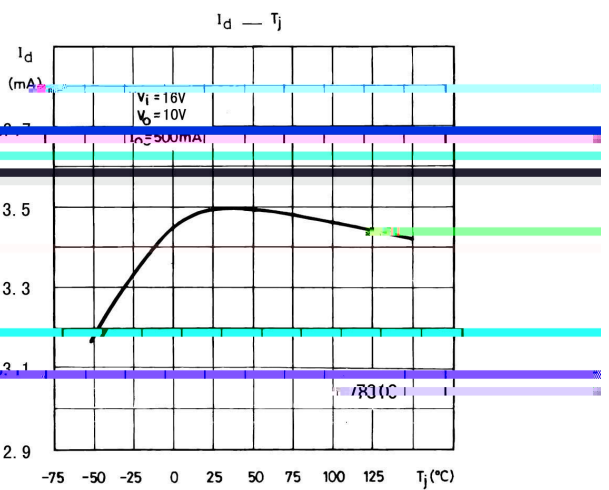
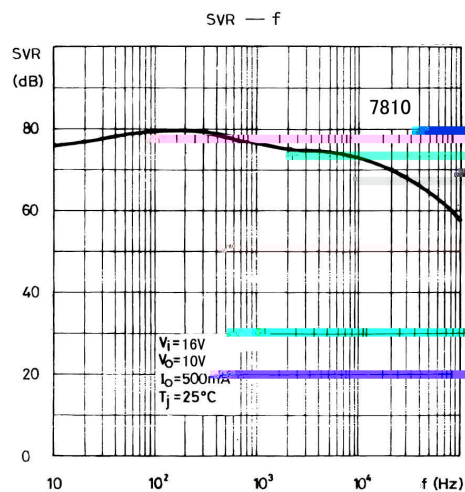
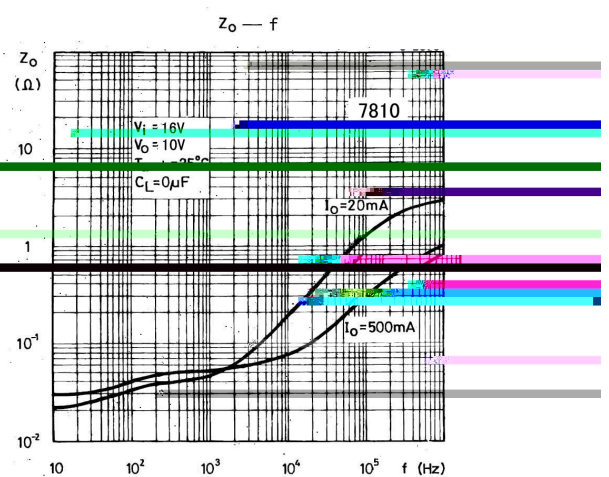
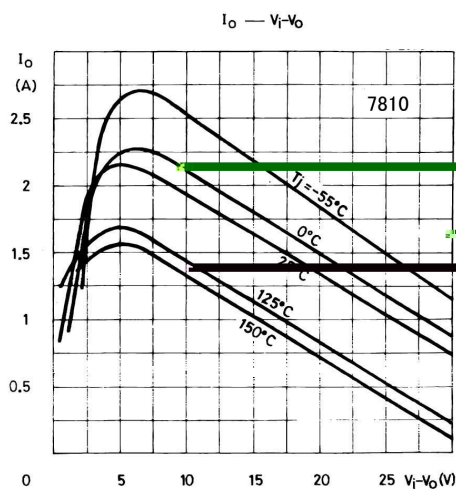
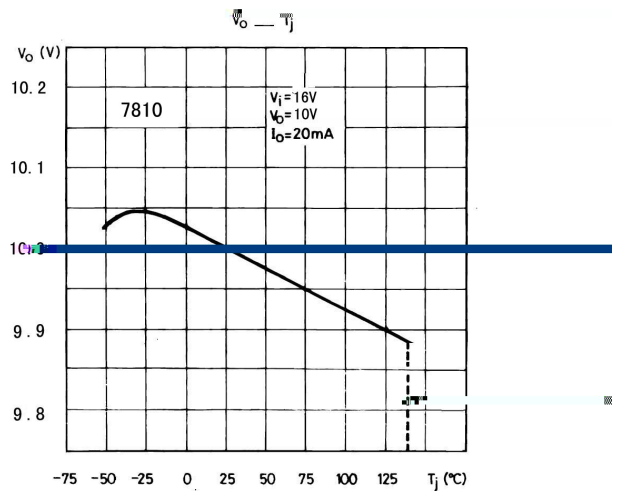
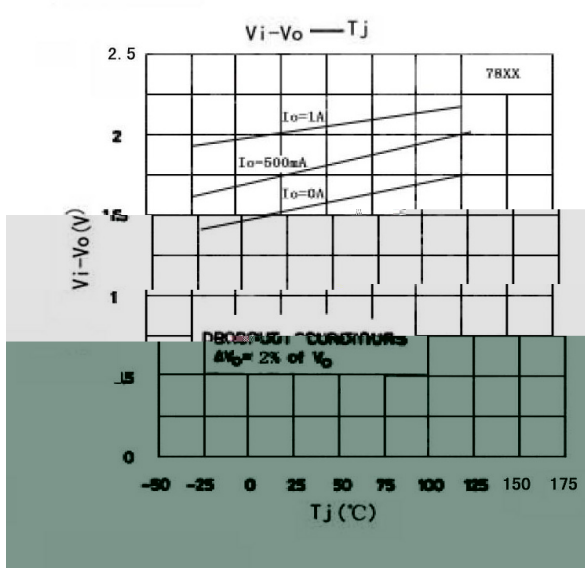
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Input voltage	V_I	35	V
Thermal Resistance Junction-ambient	$R_{\theta JA}$	50	/W
Thermal Resistance Junction-case	$R_{\theta JC}$	5.0	/W
Operating Junction Temperature Range	T_{OPR}	0 125	
Storage temperature range	T_{stg}	-65 150	

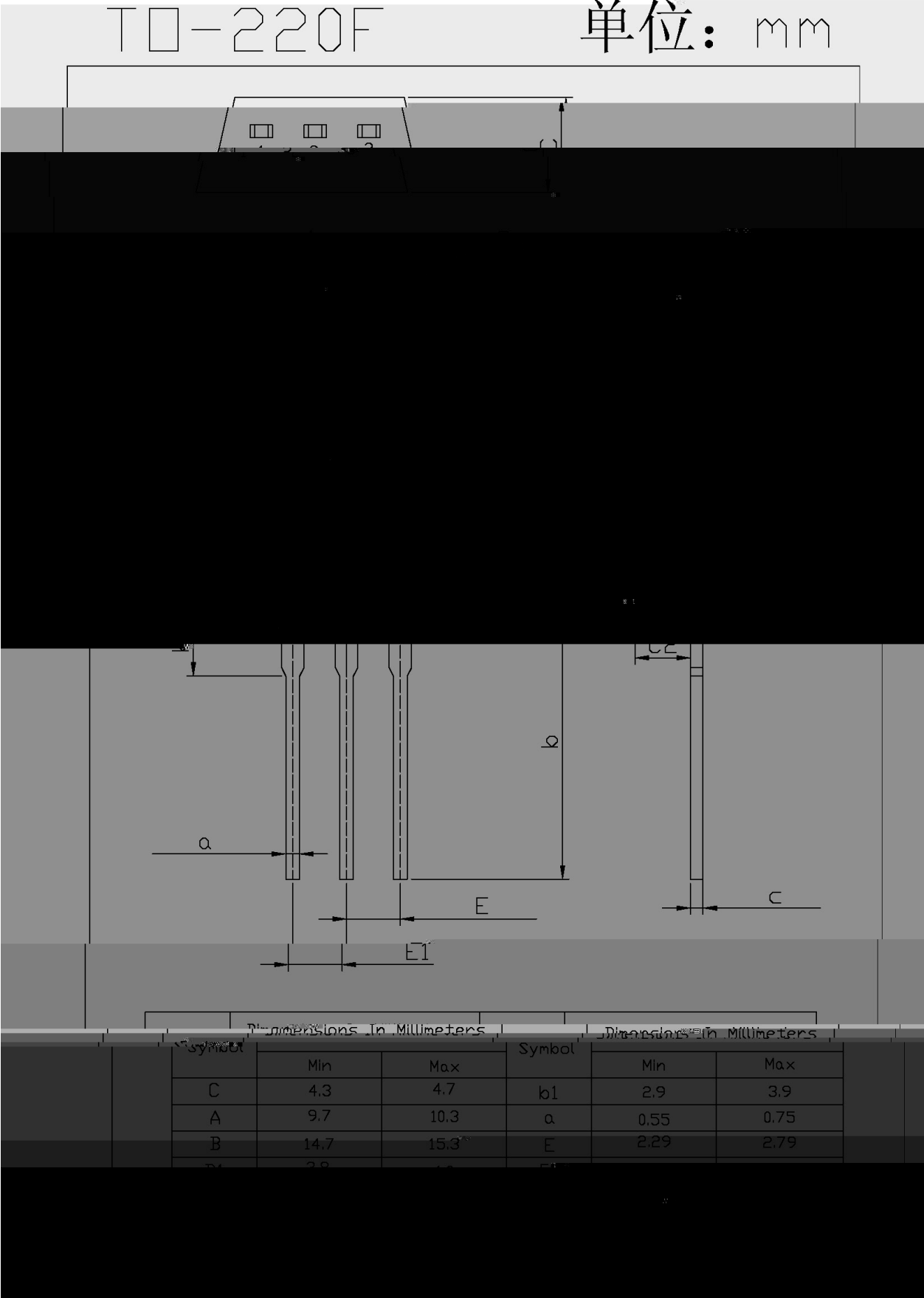
/ Electrical Characteristics(Ta=25 $V_I=16V, I_o=500mA$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25^{\circ}C$	9.6	10	10.4	V
		$V_i=12.5V-26V$ $I_o=5mA-1A$ $P_o \leq 15W$	9.5	10	10.5	V
Load Regulation	V_o	$T_j=25$ $I_o=5.0mA-1.5A$			200	mV
		$T_j=25$ $I_o=250mA-750mA$			100	mV
Line regulation	V_o	$T_j=25$ $V_i=12.5V-26V$			200	mV
		$T_j=25$ $V_i=13.5V-19V$			100	mV
Quiescent Current	I_q	$T_j=25$			8.0	mA
Quiescent Current Change	I_q	$V_i=12.5V-26V$			1.0	mA
		$I_o=5.0mA-1.0A$			0.5	mA
Output Voltage Drift	V_o/ T	$I_o=5.0mA$		-1.0		mV/
Output Noise Voltage	eN	B=10Hz-100KHz $T_j=25$		70		$\mu V/V_o$
Supply Voltage Rejection	SVR	$V_i=13V-23V$ $f=120Hz$	55			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}	$V_i=35V$ $T_j=25$		0.40		A
Short Circuit Peak Current	I_{scp}	$T_j=25$		2.2		A

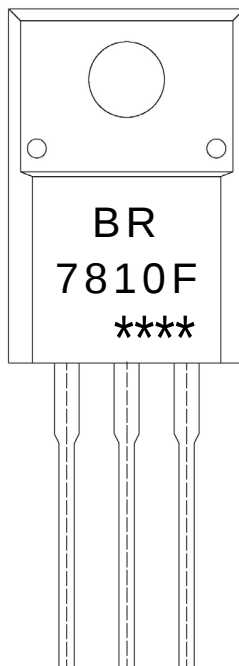
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

: ;43I

Note:

BR: Company Code.

7810F: Product Type.

****: 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
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/ Packaging SPEC.

/ BULK

Package Type 封装形式	Units 包装数量				Dimension 包装尺寸 (unit: mm3)	Dimension
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱		