

/ Descriptions

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

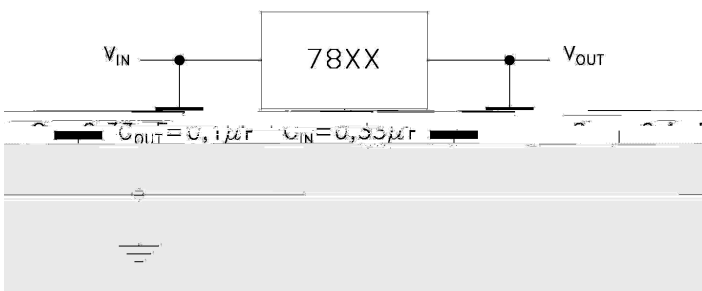
/ Features

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



/ Marking

See Marking Instructions

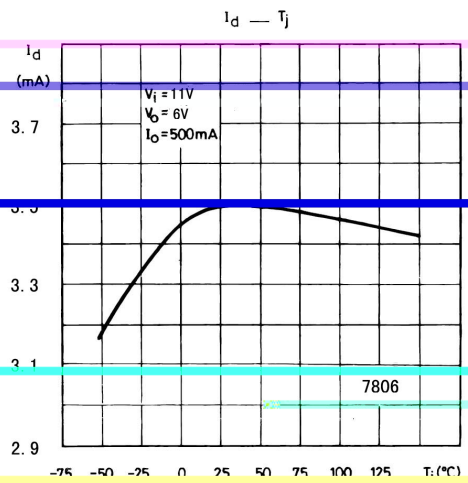
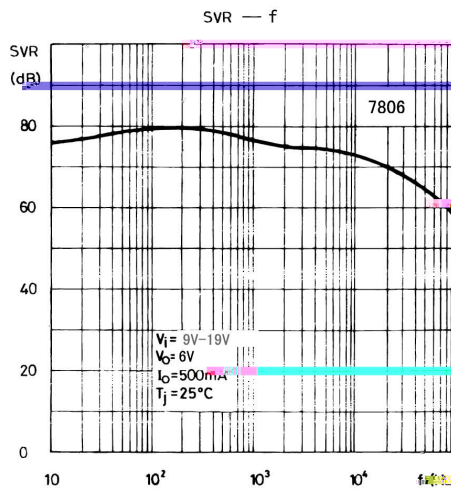
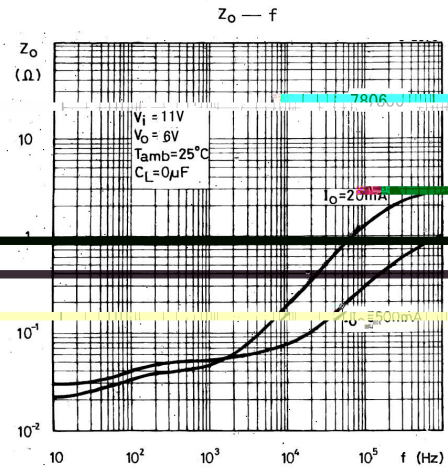
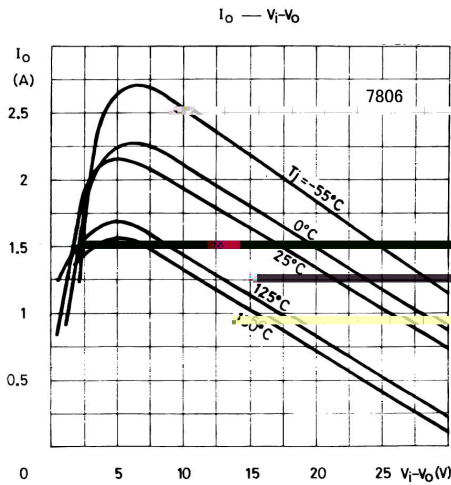
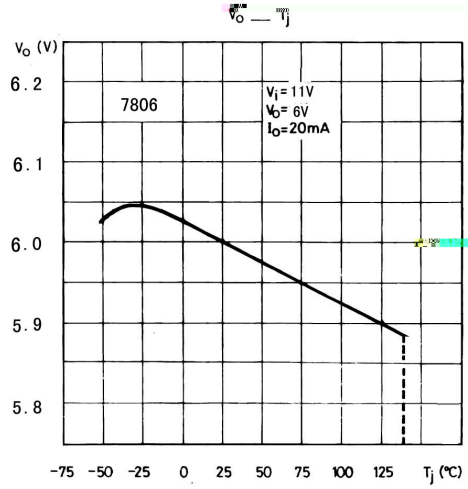
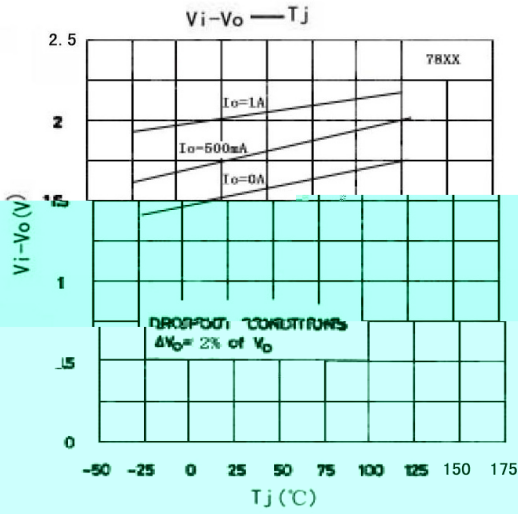
/ Absolute Maximum Ratings(Ta=25)

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

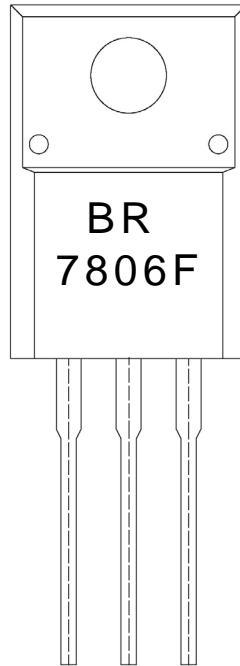
/ Electrical Characteristics(Ta=25 $V_i=11V, I_o=500mA$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25$	5.75	6.0	6.25	V
		$V_i=9V-21V$ $P_o \leq 15W$, $I_o=5mA-1A$,	5.7	6.0	6.3	V
Load Regulation	ΔV_o	$T_j=25$ $I_o=5mA-1.5A$			120	mV
		$T_j=25$ $I_o=250mA-750mA$			60	mV
Line regulation	ΔV_o	$T_j=25$ $V_i=8V-25V$			120	mV
		$T_j=25$ $V_i=9V-13V$			60	mV
Quiescent Current	I_q	$T_j=25^{\circ}C$			8.0	mA
Quiescent Current Change	ΔI_q	$V_i=9V-25V$			0.8	mA
		$I_o=5mA-1A$			0.5	mA
Output Voltage Drift	$\Delta V_o/\Delta T$	$I_o=5mA$		-0.8		mV/ $^{\circ}C$
Output Noise Voltage	eN	B=10Hz-100KHz $T_j=25^{\circ}C$		45		$\mu V/V_o$
Supply Voltage Rejection	SVR	$V_i=9V-19V$ $f=120Hz$	59	75		dB
Dropout Voltage	V_d	$I_o=1A$ $T_j=25^{\circ}C$		2.0		V
Output Resistance	R_o	$f=1KHz$		19		m Ω
Short Circuit Current	I_{sc}	$V_i=35V$ $T_j=25^{\circ}C$		0.55		A
Short Circuit Peak Current	I_{scp}	$T_j=25^{\circ}C$		2.2		A

/ Electrical Characteristic Curve



/ Marking Instructions



BR

7806F

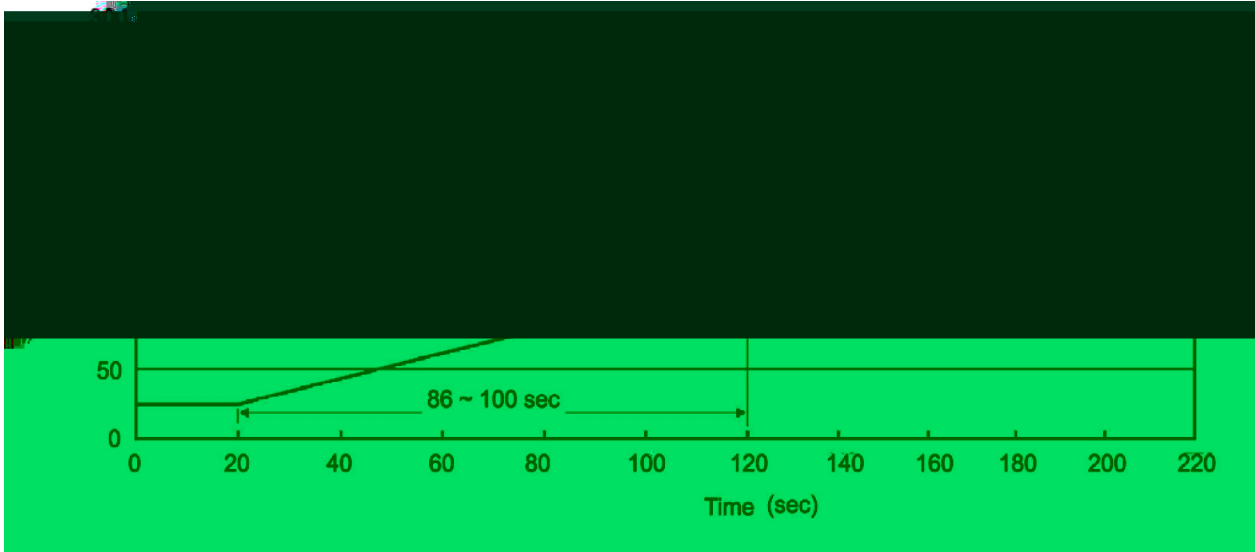
Note:

BR: Company Code.

7806F: 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

/ Packaging SPEC.

/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)		
	只袋	袋盒	只盒	盒箱	只箱	袋	盒	箱

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	只套管	套管盒	只盒	盒箱	只箱	套管	盒

/ Notices