/ Descriptions

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

/ Features

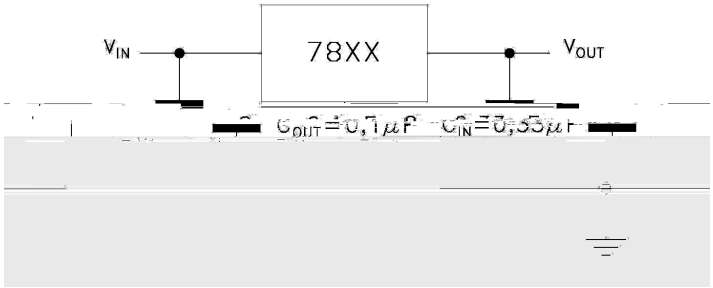
1.5A,

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

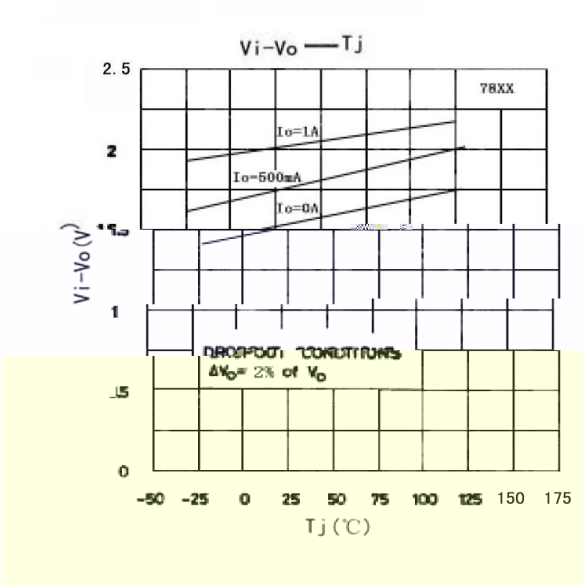
/ Absolute Maximum Ratings(Ta=25)

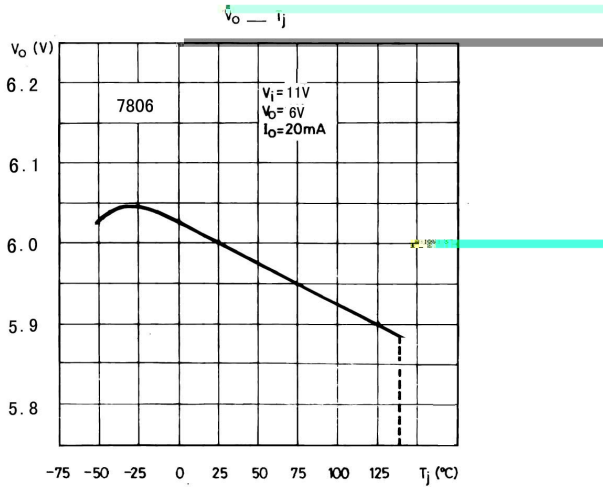
Parameter	Symbol	Rating	Unit
Input voltage	V_I	35	V
Thernal Resistance Junction-ambient	$R_{\theta JA}$	50	℃/W
Thernal Resistance Junction-case	$R_{\theta JC}$	5.0	℃/W
Operating Junction Temperature Range	T_{OPR}	0～125	℃
Storage temperature range	T_{stg}	-65～150	℃

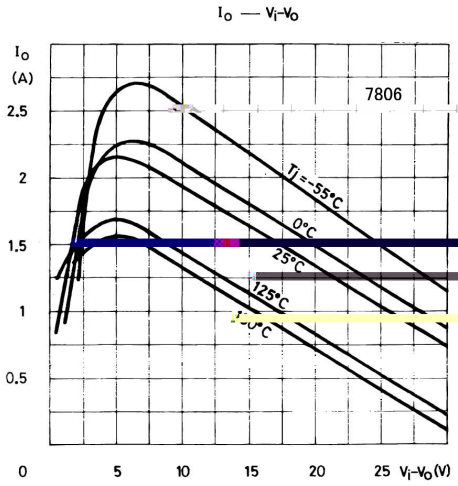
/ Electrical Characteristics(Ta=25 Vi=11V,Io=500mA unless otherwise specified)

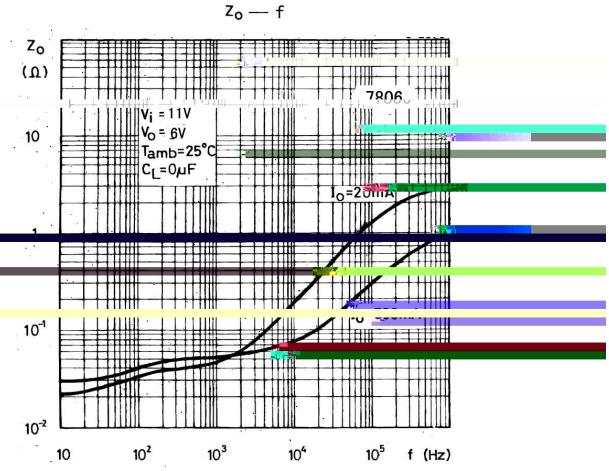
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_O	T_j=25	5.75	6.0	6.25	V
		V_i=9V-21V Po≤15W, Io=5mA-1A,	5.7	6.0	6.3	V
Load Regulation	△Vo	T_j=25 Io=5mA-1.5A			120	mV
		T_j=25 Io=250mA-750mA			60	mV
Line regulation	△Vo	T_j=25 Vi=8V-25V			120	mV
		T_j=25 Vi=9V-13V			60	mV
Quiescent Current	Iq	T_j=25℃			8.0	mA
Quiescent Current Change	△Iq	V_i=9V-25V			0.8	mA
		Io=5mA-1A			0.5	mA
Output Voltage Drift	△Vo/△T	Io=5mA		-0.8		mV/℃
Output Noise Voltage	eN	B=10Hz-100KHz T_j=25℃		45		μV/Vo
Supply Voltage Rejection	SVR	V_i=9V-19V f=120Hz	59	75		dB
Dropout Voltage	Vd	Io=1A T_j=25℃		2.0		V
Output Resistance	Ro	f=1KHz		19		mΩ
Short Circuit Current	Isc	V_i=35V T_j=25℃		0.55		A
Short Circuit Peak Current	Iscp	T_j=25℃		2.2		A

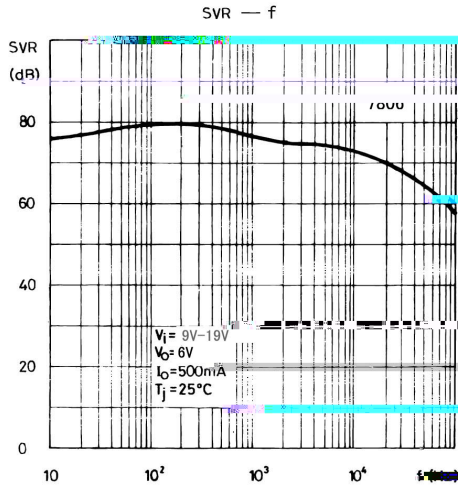
/ Electrical Characteristic Curve

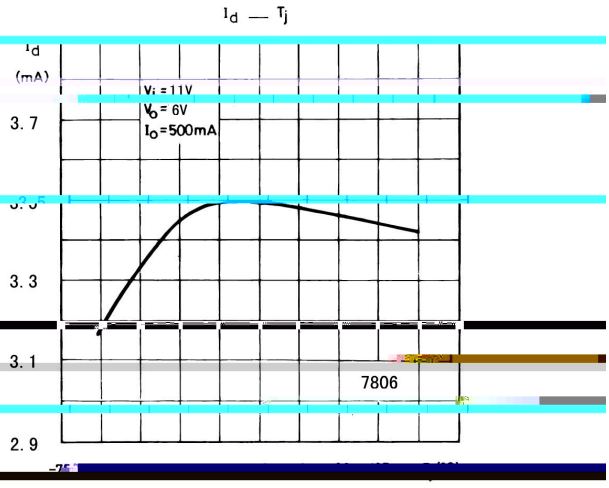




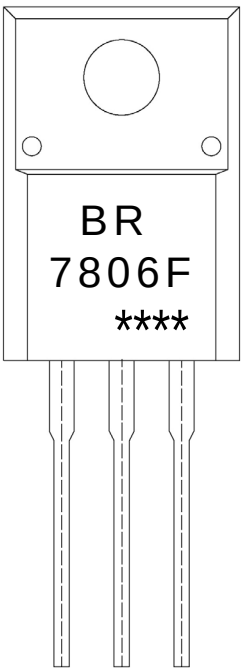








/ Marking Instructions



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)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50

/ Notices