

Ø / Descriptions

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

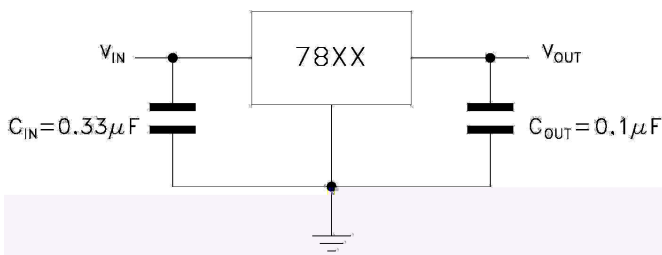
/ / Features

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

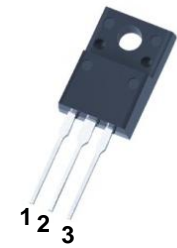
÷ / Applications

Voltage Regulator.

∩ / Equivalent Circuit or Application Circuit



⊞ / Pinning



PIN1 IN PIN 2 GND PIN 3 OUT

M / Marking

See Marking Instructions

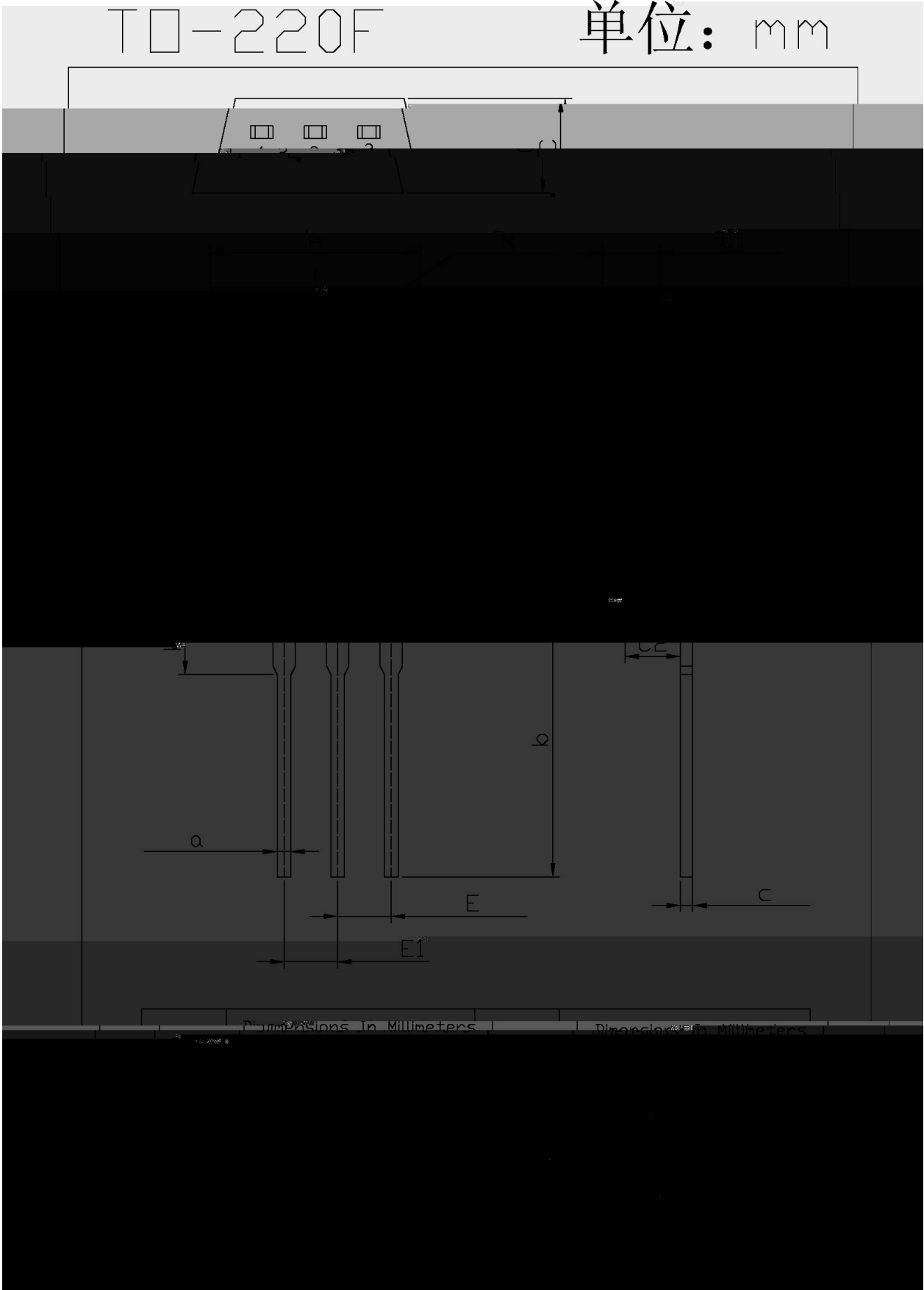
④ / Absolute Maximum Ratings(Ta=25;)

Parameter	Symbol	Rating	Unit
Input voltage	V_i	35	V
Thermal Resistance Junction-Ambient	R_{JA}	60	/W
Thermal Resistance Junction-Case	R_{JC}	5.0	/W
Operating Junction Temperature Range	T_{OPR}	0 125	
Storage temperature range	T_{stg}	-65 150	

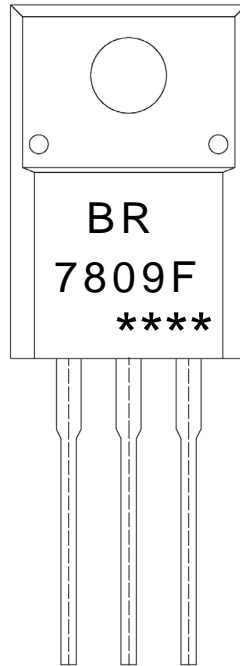
⑤ / Electrical Characteristics(Ta=25g Vi=15V,Io=500mA unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25$	8.65	9.0	9.35	V
		$V_i=11.5V-26V$ $I_o=5mA-1A$ $P_o \leq 15W$	8.55	9.0	9.45	V
Load Regulation	ΔV_o	$T_j=25$ $I_o=5.0mA-1.5A$			180	mV
		$T_j=25$ $I_o=250mA-750mA$			90	mV
Line regulation	ΔV_o	$T_j=25$ $V_i=11.5V-26V$			180	mV
		$T_j=25$ $V_i=12V-18V$			90	mV
Quiescent Current	I_q	$T_j=25$			8.0	mA
Quiescent Current Change	ΔI_q	$V_i=11.5V-26V$			1.0	mA
		$I_o=5.0mA-1.0A$			0.5	mA
Output Voltage Drift	$\Delta V_o / T$	$I_o=5.0mA$		-1.0		mV/
Output Noise Voltage	eN	B=10Hz-100KHz $T_j=25$		70		V/Vo
Supply Voltage Rejection	SVR	$V_i=12V-23V$ $f=120Hz$	55			dB
Dropout Voltage	Vd	$I_o=1A$ $T_j=25$		2.0		V
Output Resistance	Ro	$f=1KHz$		17		m
Short Circuit Current	Isc	$V_i=35V$ $T_j=25$		0.40		A
Short Circuit Peak Current	Iscp	$T_j=25$		2.2		A

 / Package Dimensions



1 / Marking Instructions



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Note:

BR: Company Code.

7809F: Product Type.

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

7809F
Rev.G Dec.-2018