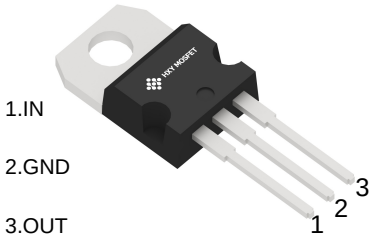
Features

- Maximum output current I_{OM}: 1A
- Output voltage V_O: 5V
- Continuous total dissipation P_D: 1.5 W (T_a= 25 ℃)



TO-220S

Package Marking and Ordering Information

Product ID	Pack	Marking	Units Tube
7805	TO-220S	7805	50

Maximum Ratings (Ta=25℃unless otherwise noted)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Air	$R_{\theta JA}$	66.7	℃/W
Operating Junction Temperature Range	T_{OPR}	-25~+125	℃
Storage Temperature Range	T_{STG}	-65~+150	℃

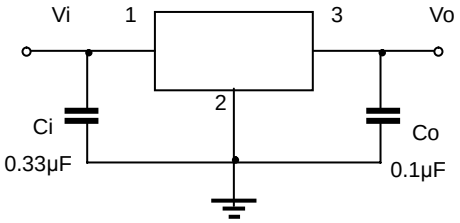
Electrical Characteristics (Ta=25℃unless otherwise specified)

(V_i=10V, Io=500mA, C_i=2.2μF,Co=1μF, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output voltage	Vo		25℃	4.8	5.0	5.2	V
		7V≤V_i≤20V, Io=5mA-1A	-25-125℃	4.75	5.00	5.25	V
Load Regulation	△Vo	Io=5mA-1A	25℃		9	100	mV
		Io=250mA-750mA	25℃		4	50	mV
Line regulation	△Vo	7V≤V_i≤25V	25℃		4	100	mV
		8V≤V_i≤12V	25℃		1.6	50	mV
Quiescent Current	Iq		25℃		5	8	mA
Quiescent Current Change	△Iq	7V≤V_i≤25V	-25-125℃		0.3	1.3	mA
		5mA≤I_O≤1A	-25-125℃		0.03	0.5	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25℃		42		uV
Output voltage drift	△Vo/△T	I_O=5mA	-25-125℃		-1.1		mV/℃
Ripple Rejection	RR	8V≤V_i≤18V,f=120Hz	-25-125℃	62	73		dB
Dropout Voltage	Vd	Io=1A	25℃		2		μV/Vo
Output resistance	R_O	f=1KH_Z	25℃		10		mΩ
Short Circuit Current	Isc		25℃		230		mA
Peak Current	Ipk		25℃		2.2		A

* Pulse test.

Typical Application



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

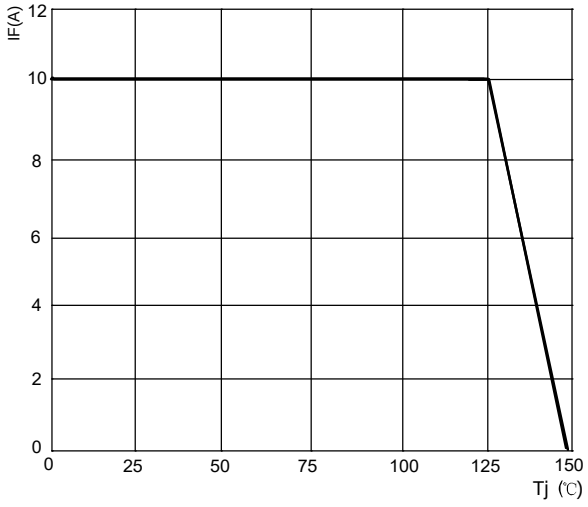


FIG.2: TYPICAL FORWARD CHARACTERISTICS

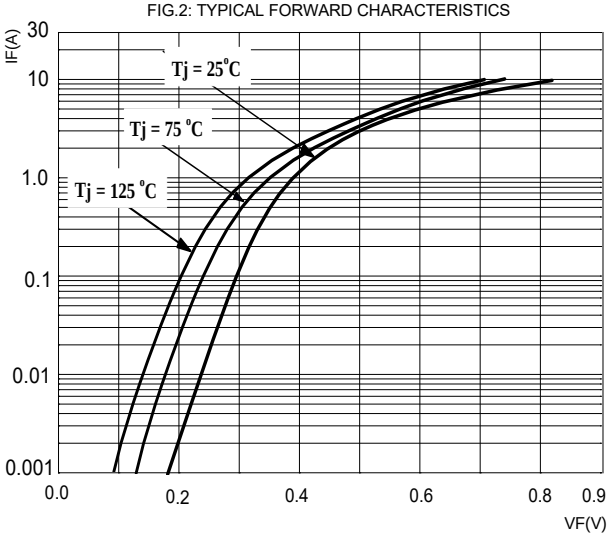


FIG.3: TOTAL CAPACITANCE DERATING CURVE

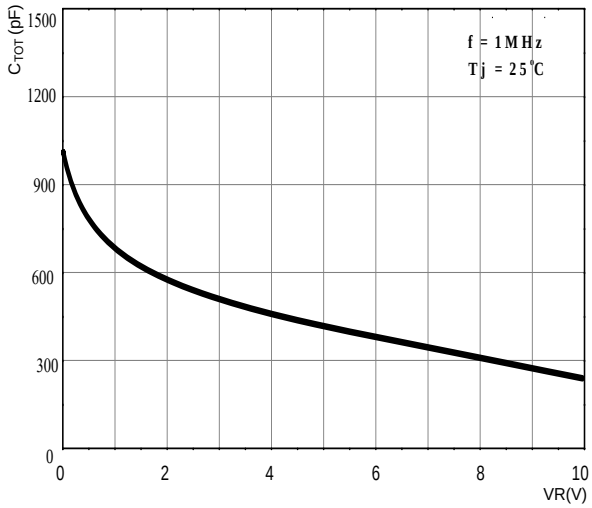
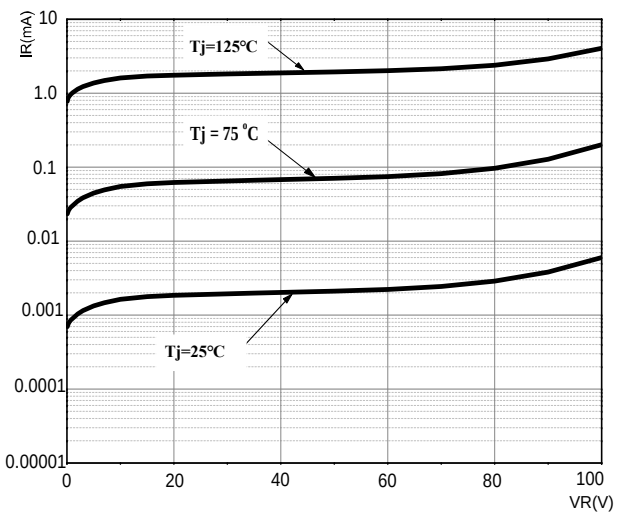
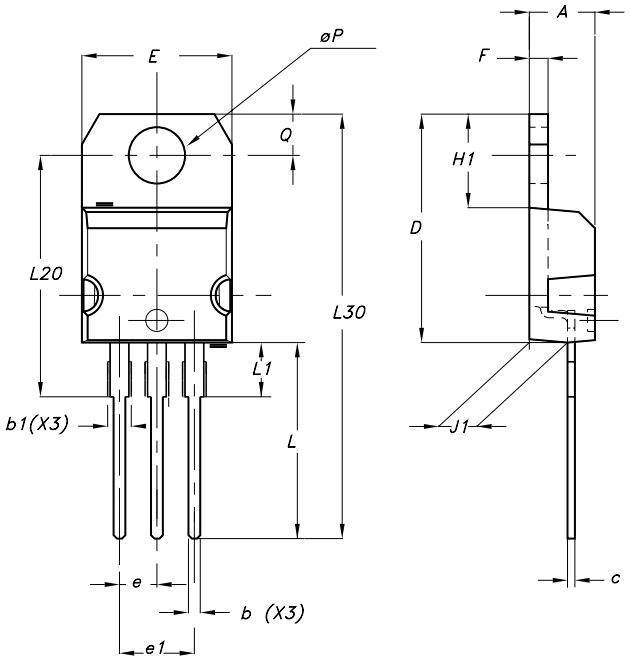


FIG.4: TYPICAL REVERSE CHARACTERISTICS



Package Information
TO-220S



DIM.	mm.			inch		
	MIN.	TYP	MAX.	MIN.	TYP.	MAX.
A	4.40		4.60	0.173		0.181
b	0.61		0.88	0.024		0.034
b1	1.15		1.70	0.045		0.066
c	0.49		0.70	0.019		0.027
D	15.25		15.75	0.60		0.620
E	10		10.40	0.393		0.409
e	2.40		2.70	0.094		0.106
e1	4.95		5.15	0.194		0.202
F	1.23		1.32	0.048		0.052
H1	6.20		6.60	0.244		0.256
J1	2.40		2.72	0.094		0.107
L	13		14	0.511		0.551
L1	3.50		3.93	0.137		0.154
L20		16.40			0.645	
L30		28.90			1.137	
øP	3.75		3.85	0.147		0.151
Q	2.65		2.95	0.104		0.116

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