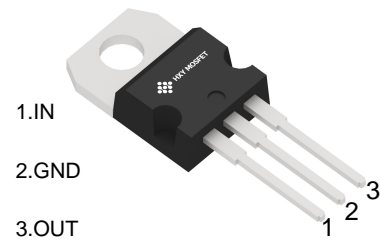




## Features

- Maximum output current  $I_{OM}$ : 1 A
- Output voltage  $V_O$ : 6V
- Continuous total dissipation  $P_D$ : 1.5 W ( $T_a = 25^\circ\text{C}$ )



## Maximum Ratings ( $T_a = 25^\circ\text{C}$ unless otherwise noted)

TO-220S

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

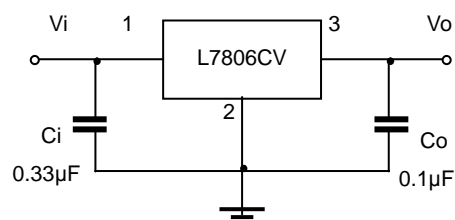
## Electrical Characteristics ( $T_a = 25^\circ\text{C}$ unless otherwise specified)

( $V_i = -11\text{V}$ ,  $I_o = 500\text{mA}$ ,  $C_i = 2.2\mu\text{F}$ ,  $C_o = 1\mu\text{F}$ , unless otherwise specified)

Parameter	Symbol	Test conditions		MIN	TYP	MAX	UNIT
Output voltage	Vo		25°C	5.75	6	6.25	V
		8V≤V <sub>i</sub> ≤21V, I <sub>o</sub> =5mA-1A	-25-125°C	5.7	6	6.3	V
Load Regulation	△Vo	I <sub>o</sub> =5mA-1A	25°C		14	120	mV
		I <sub>o</sub> =250mA-750mA	25°C		4	60	mV
Line regulation	△Vo	8V≤V <sub>i</sub> ≤25V	25°C		5	120	mV
		9V≤V <sub>i</sub> ≤13V	25°C		1.5	60	mV
Quiescent Current	Iq		25°C		4.3	8	mA
Quiescent Current Change	△Iq	8V≤V <sub>i</sub> ≤25V	-25-125°C			1.3	mA
		5mA≤I <sub>o</sub> ≤1A	-25-125°C			0.5	mA
Output voltage drift	△Vo/△T	I <sub>o</sub> =5mA	0-125°C		-0.8		mV/°C
Output Noise Voltage	V <sub>N</sub>	10Hz≤f≤100KHz	25°C		45		μV/V <sub>o</sub>
Ripple Rejection	RR	9V≤V <sub>i</sub> ≤19V,f=120Hz	-25-125°C	59	75		dB
Dropout Voltage	V <sub>d</sub>	I <sub>o</sub> =1A	25°C		2		V
Output resistance	R <sub>O</sub>	f=1KHz	25°C		10		mΩ
Short Circuit Current	I <sub>sc</sub>		25°C		550		mA
Peak Current	I <sub>pk</sub>		25°C		2.2		A

\* Pulse test.

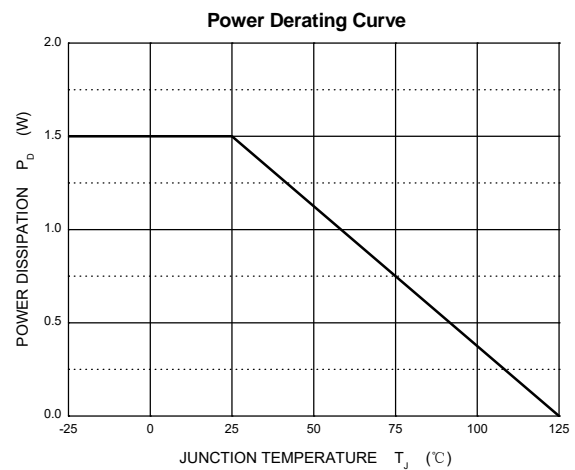
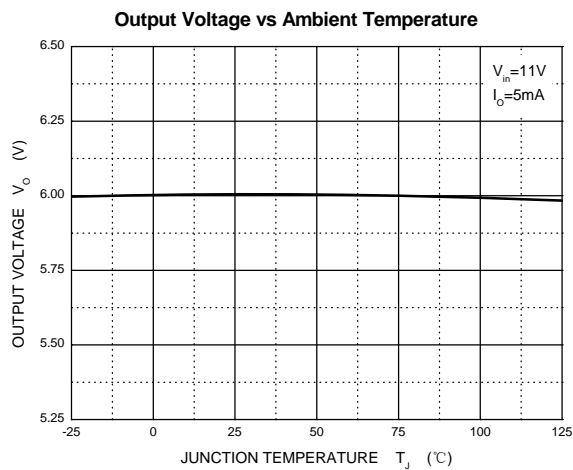
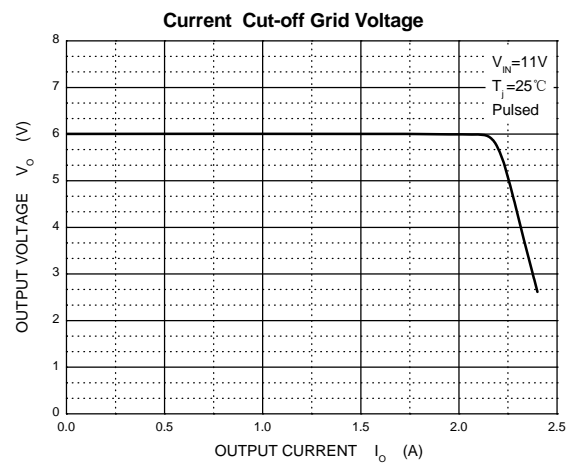
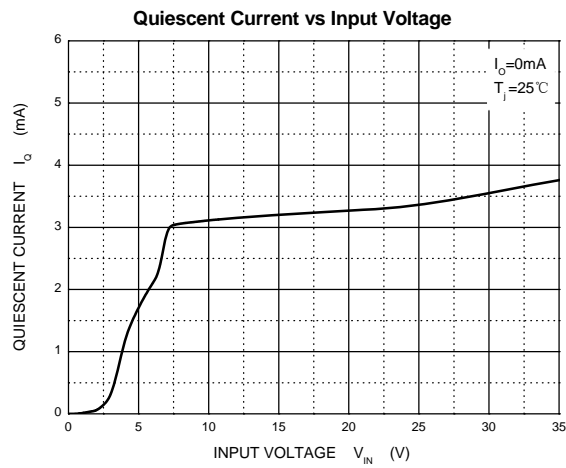
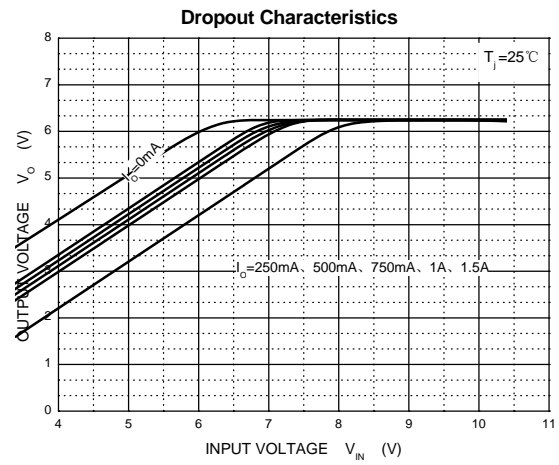
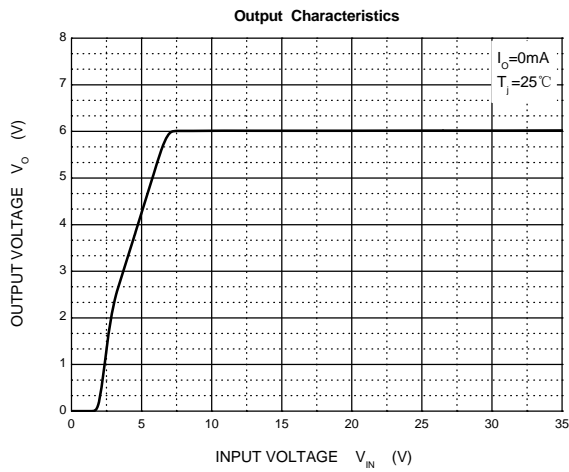
## Typical Application



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

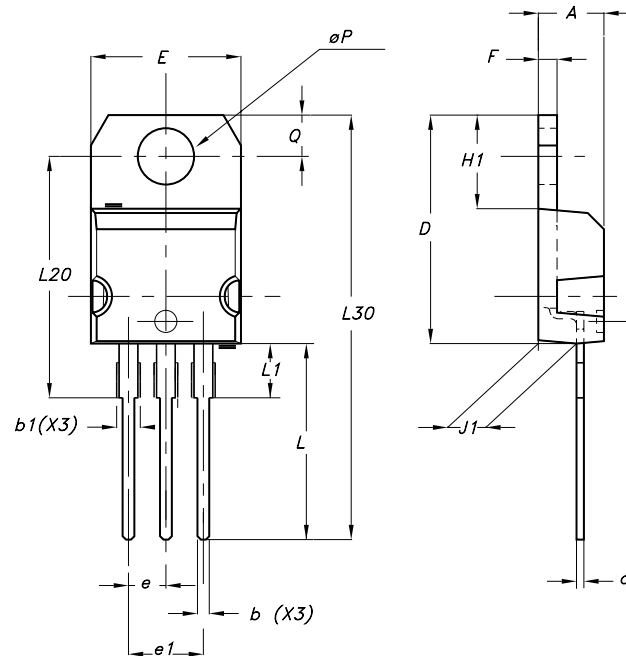


## Typical Characteristics





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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