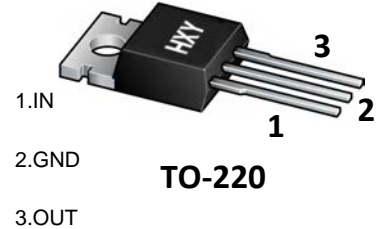




## FEATURES

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



## ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

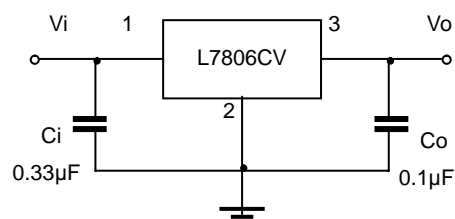
Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	66.7	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_{OPR}$	-25~+125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ\text{C}$

## ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i=11\text{V}, I_o=500\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$ , unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$25^\circ\text{C}$	5.75	6	6.25	V
		$8\text{V} \leq V_i \leq 21\text{V}, I_o=5\text{mA}-1\text{A}$	-25-125 $^\circ\text{C}$	5.7	6	6.3
Load Regulation	$\Delta V_o$	$I_o=5\text{mA}-1\text{A}$	$25^\circ\text{C}$	14	120	mV
		$I_o=250\text{mA}-750\text{mA}$	$25^\circ\text{C}$	4	60	mV
Line regulation	$\Delta V_o$	$8\text{V} \leq V_i \leq 25\text{V}$	$25^\circ\text{C}$	5	120	mV
		$9\text{V} \leq V_i \leq 13\text{V}$	$25^\circ\text{C}$	1.5	60	mV
Quiescent Current	$I_q$	$25^\circ\text{C}$		4.3	8	mA
Quiescent Current Change	$\Delta I_q$	$8\text{V} \leq V_i \leq 25\text{V}$	-25-125 $^\circ\text{C}$		1.3	mA
		$5\text{mA} \leq I_o \leq 1\text{A}$	-25-125 $^\circ\text{C}$		0.5	mA
Output voltage drift	$\Delta V_o/\Delta T$	$I_o=5\text{mA}$	0-125 $^\circ\text{C}$	-0.8		mV/ $^\circ\text{C}$
Output Noise Voltage	$V_N$	10Hz $\leq f \leq$ 100KHz	$25^\circ\text{C}$	45		$\mu\text{V}/V_o$
Ripple Rejection	RR	$9\text{V} \leq V_i \leq 19\text{V}, f=120\text{Hz}$	-25-125 $^\circ\text{C}$	59	75	dB
Dropout Voltage	$V_d$	$I_o=1\text{A}$	$25^\circ\text{C}$	2		V
Output resistance	$R_o$	$f=1\text{KHz}$	$25^\circ\text{C}$	10		m $\Omega$
Short Circuit Current	$I_{sc}$	$25^\circ\text{C}$		550		mA
Peak Current	$I_{pk}$	$25^\circ\text{C}$		2.2		A

\* Pulse test.

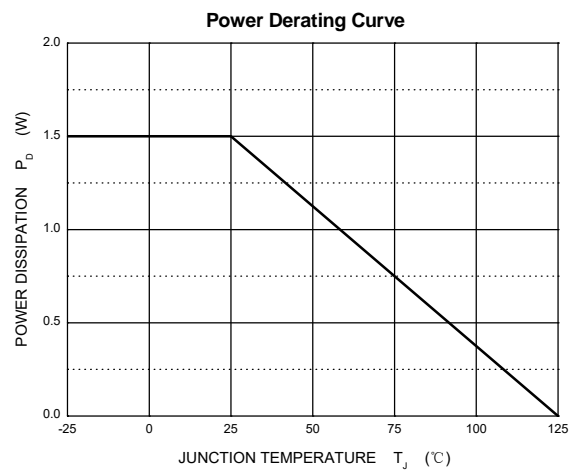
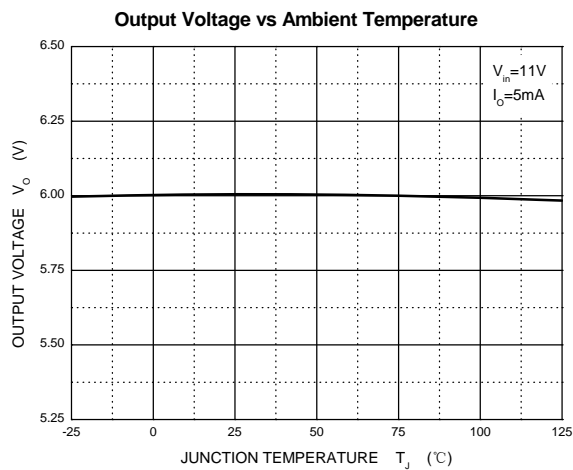
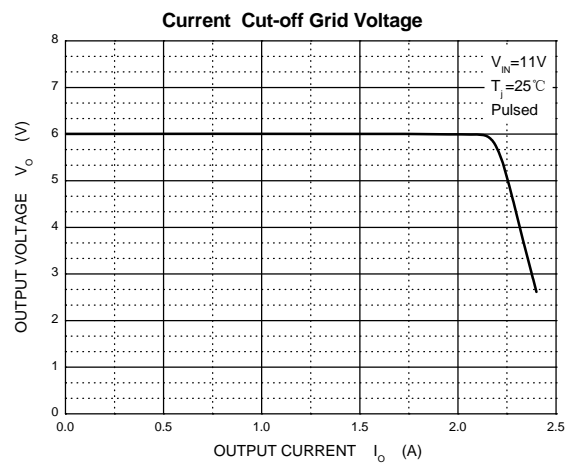
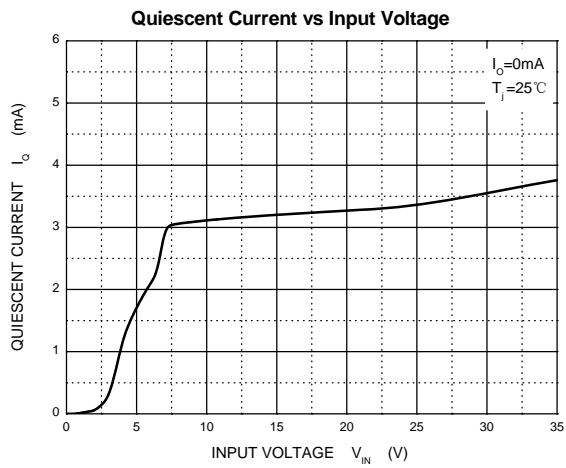
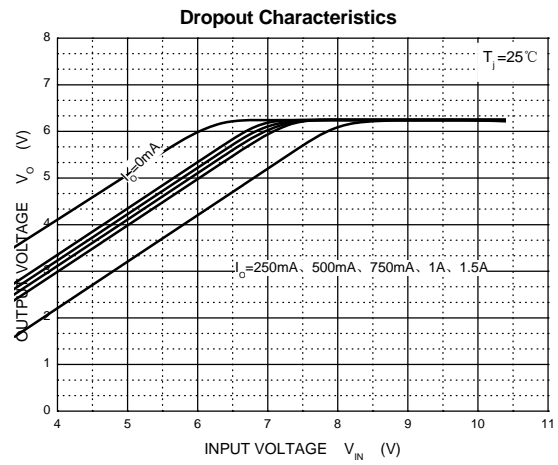
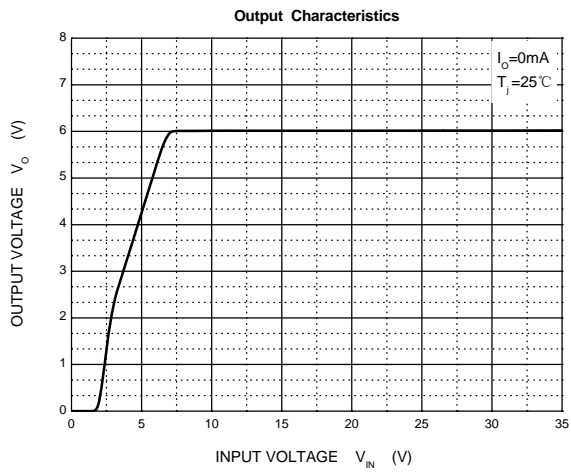
## TYPICAL APPLICATION



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



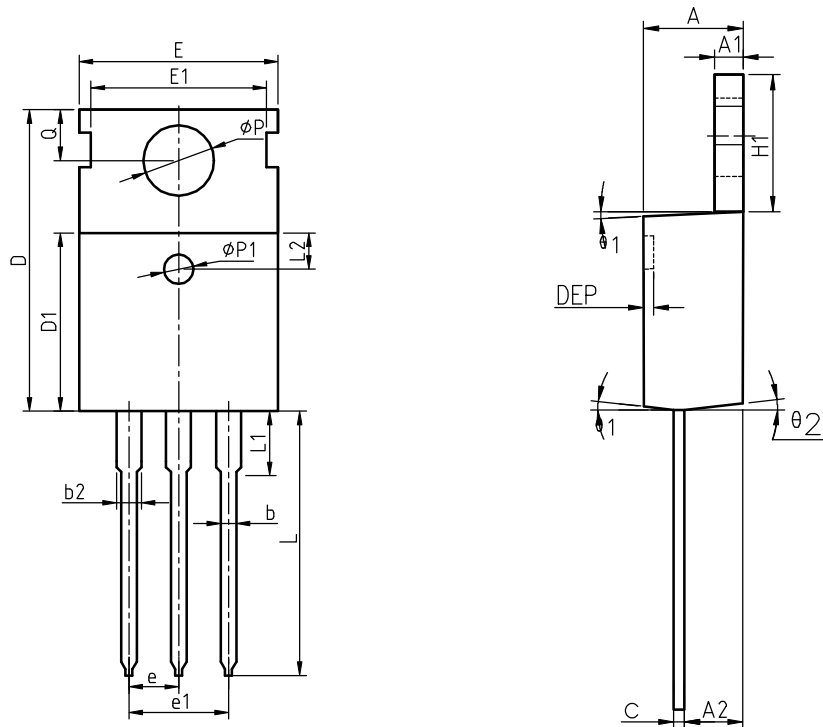
### Typical Characteristics





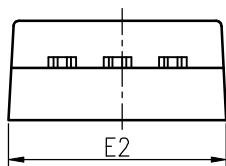
## Package Information

### TO-220



COMMON DIMENSIONS

SYMBOL	MIN	NOM	MAX	MIN	NOM	MAX
A	4.40	4.57	4.70	0.173	0.180	0.185
A1	1.27	1.30	1.33	0.050	0.051	0.052
A2	2.35	2.40	2.50	0.093	0.094	0.098
b	0.77	0.80	0.90	0.030	0.031	0.035
b2	1.17	1.27	1.36	0.046	0.050	0.054
c	0.48	0.50	0.56	0.019	0.020	0.022
D	15.40	15.60	15.80	0.606	0.614	0.622
D1	9.00	9.10	9.20	0.354	0.358	0.362
DEP	0.05	0.10	0.20	0.002	0.004	0.008
E	9.80	10.00	10.20	0.386	0.394	0.402
E1	-	8.70	-	-	0.343	-
E2	9.80	10.00	10.20	0.386	0.394	0.402
e		2.54	BSC		0.100	BSC
e1		5.08	BSC		0.200	BSC
H1	6.40	6.50	6.60	0.252	0.256	0.260
L	12.75	13.50	13.65	0.502	0.531	0.537
L1	-	3.10	3.30	-	0.122	0.130
L2		2.50	REF		0.098	REF
P	3.50	3.60	3.63	0.138	0.142	0.143
P1	3.50	3.60	3.63	0.138	0.142	0.143
Q	2.73	2.80	2.87	0.107	0.110	0.113
theta 1	5°	7°	9°	5°	7°	9°
theta 2	1°	3°	5°	1°	3°	5°
theta 3	1°	3°	5°	1°	3°	5°





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