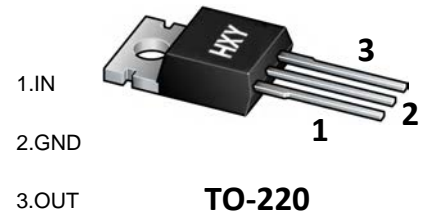




## FEATURES

- Maximum output current  
 $I_{OM}: 1A$
- Output voltage  
 $V_O: 9V$
- Continuous total dissipation  
 $P_D: 1.5W$  ( $T_a = 25^\circ C$ )



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

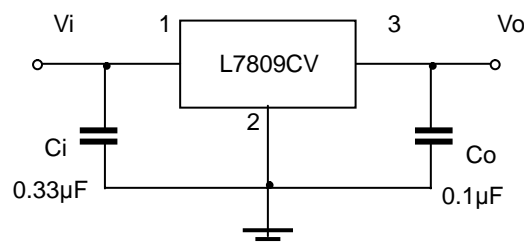
Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	83.3	$^\circ C/W$
Operating Junction Temperature Range	$T_{OPR}$	0~+150	$^\circ C$
Storage Temperature Range	$T_{STG}$	-55~+150	$^\circ C$

## ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i=16V, I_o=500mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$25^\circ C$	8.65	9	9.35	V
		$11.5V \leq V_i \leq 24V, I_o = 5mA-1A, P \leq 15W$ $-25-125^\circ C$	8.55	9	9.45	V
Load Regulation	$\Delta V_o$	$I_o = 5mA-1.5A$ $25^\circ C$		12	180	mV
		$I_o = 250mA-750mA$ $25^\circ C$		4	90	mV
Line regulation	$\Delta V_o$	$11.5V \leq V_i \leq 27V$ $25^\circ C$		7	180	mV
		$13V \leq V_i \leq 19V$ $25^\circ C$		2	90	mV
Quiescent Current	$I_q$	$25^\circ C$		4.3	8	mA
Quiescent Current Change	$\Delta I_q$	$11.5V \leq V_i \leq 27V$ $-25-125^\circ C$			1	mA
		$5mA \leq I_o \leq 1A$ $-25-125^\circ C$			0.5	mA
Output voltage drift	$\Delta V_o / \Delta T$	$I_o = 5mA$ $-25-125^\circ C$		-1		mV/ $^\circ C$
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$ $25^\circ C$		60		$\mu V/V_o$
Ripple Rejection	RR	$12V \leq V_i \leq 22V, f = 120Hz$ $-25-125^\circ C$	55	70		dB
Dropout Voltage	$V_d$	$I_o = 1A$ $25^\circ C$		2		V
Output resistance	$R_o$	$f = 1KHz$ $25^\circ C$		18		m $\Omega$
Short Circuit Current	$I_{sc}$	$25^\circ C$		400		mA
Peak Current	$I_{pk}$	$25^\circ C$		2.2		A

\* Pulse test.

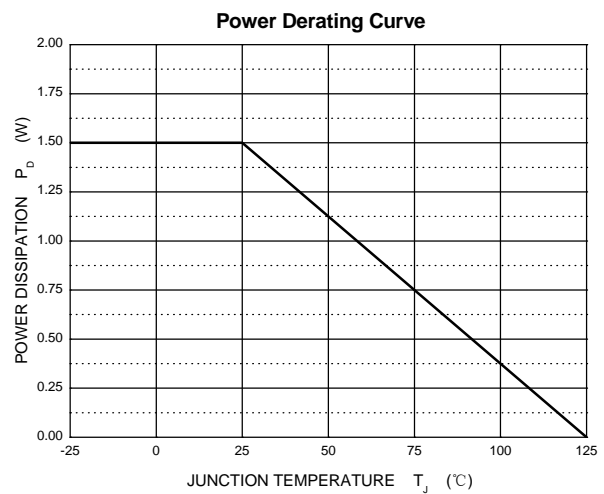
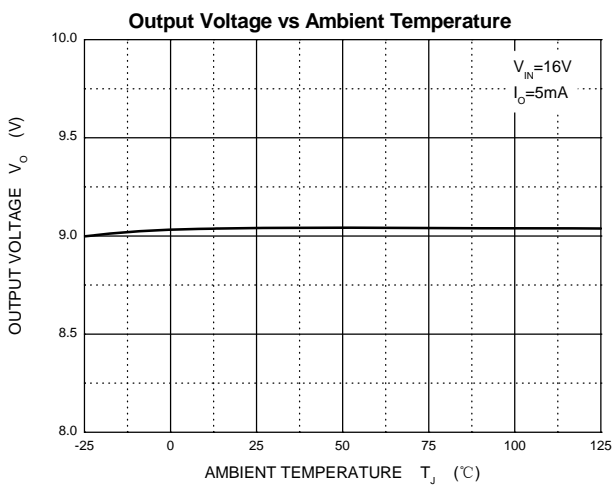
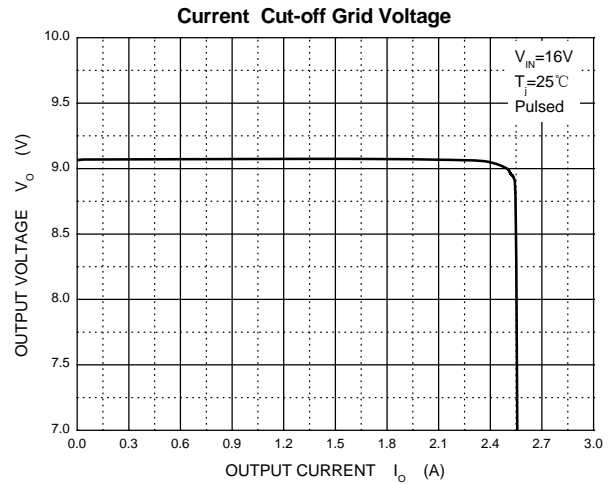
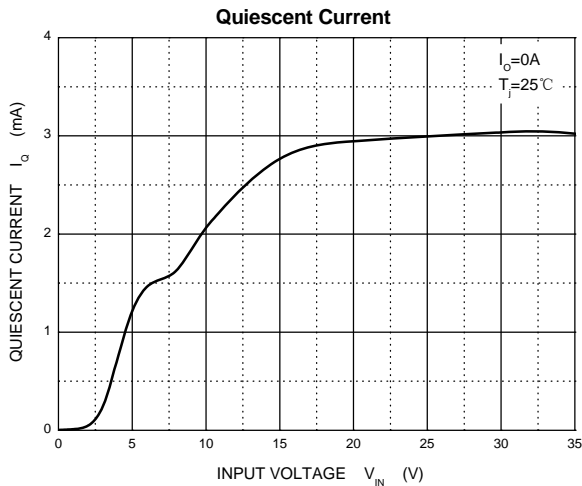
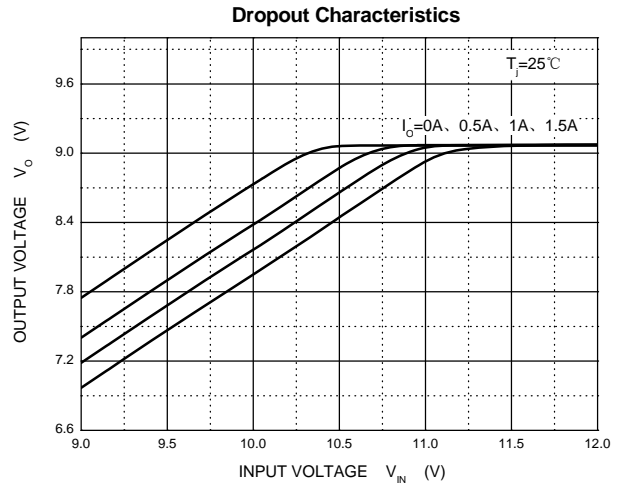
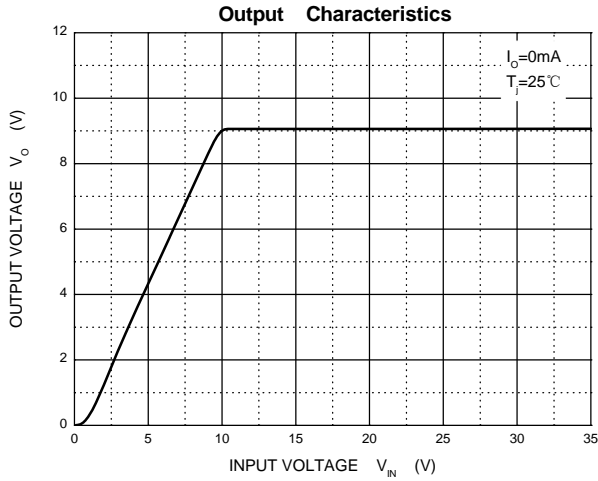
## TYPICAL APPLICATION



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



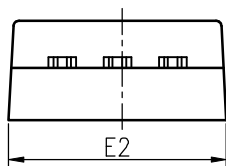
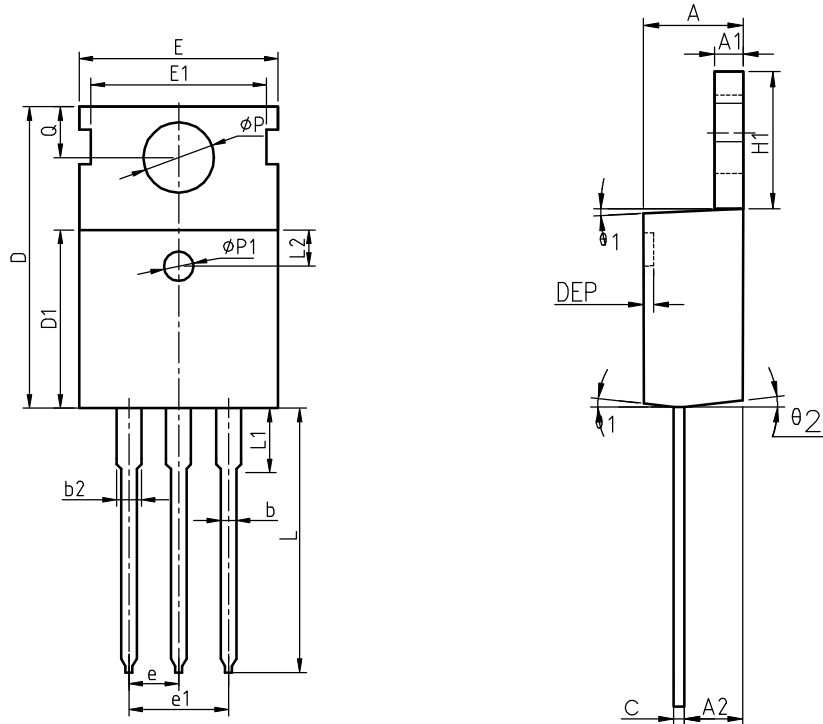
## Typical Characteristics





## 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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