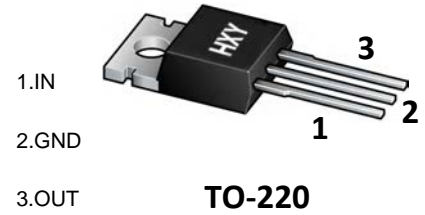




## FEATURES

- Maximum output current  
 $I_{OM}: 1A$
- Output voltage  
 $V_O: 15 V$
- Continuous total dissipation  
 $P_D: 1.5W$  ( $T_a = 25^\circ C$ )



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

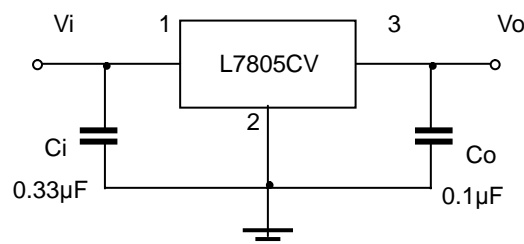
Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	66.7	$^\circ C/W$
Operating Junction Temperature Range	$T_{OPR}$	-25~+125	$^\circ C$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ C$

## ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i=23V, I_o=500mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$25^\circ C$	14.4	15	15.6	V
		$17.5V \leq V_i \leq 30V, I_o=5mA-1A$ $-25-125^\circ C$	14.25	15	15.75	V
Load Regulation	$\Delta V_o$	$I_o=5mA-1A$ $25^\circ C$		12	300	mV
		$I_o=250mA-750mA$ $25^\circ C$		4	150	mV
Line regulation	$\Delta V_o$	$17.5V \leq V_i \leq 30V$ $25^\circ C$		12	300	mV
		$20V \leq V_i \leq 26V$ $25^\circ C$		3	150	mV
Quiescent Current	$I_q$	$25^\circ C$		4.3	8	mA
Quiescent Current Change	$\Delta I_q$	$17.5V \leq V_i \leq 30V$ $-25-125^\circ C$			1	mA
	$\Delta I_q$	$5mA \leq I_o \leq 1A$			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	$V_N$	$10Hz \leq f \leq 100KHz$ $25^\circ C$		90		$\mu V/V_o$
Ripple Rejection	RR	$18.5V \leq V_i \leq 28.5V, f=120Hz$ $-25-125^\circ C$	54	70		dB
Dropout Voltage	$V_d$	$I_o=1A$ $25^\circ C$		2		V
Output resistance	$R_o$	$f=1KHz$ $25^\circ C$		19		$m\Omega$
Short Circuit Current	$I_{sc}$	$25^\circ C$		230		mA
Peak Current	$I_{pk}$	$25^\circ C$		2.1		A

\* Pulse test.

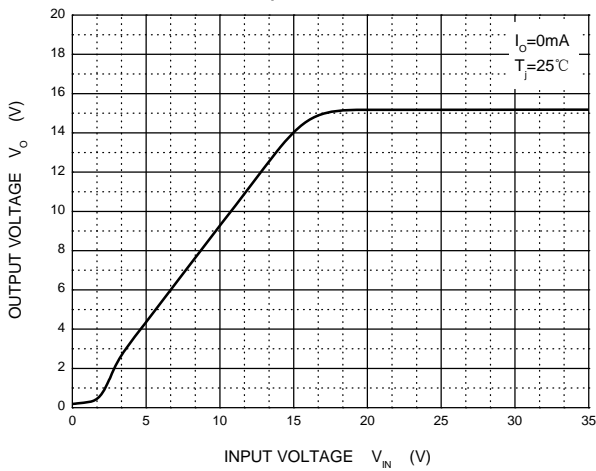
## TYPICAL APPLICATION



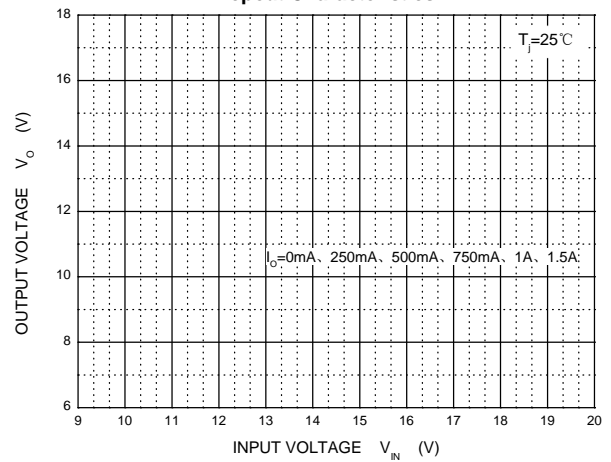
Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.



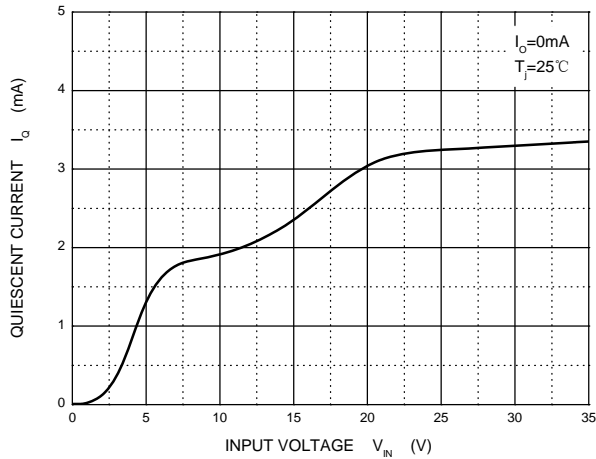
Output Characteristics



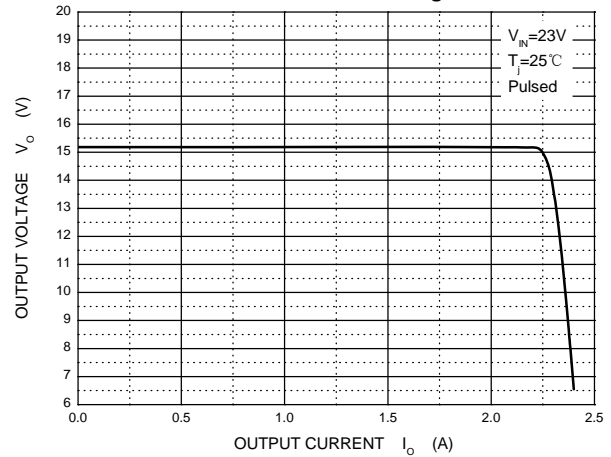
Dropout Characteristics



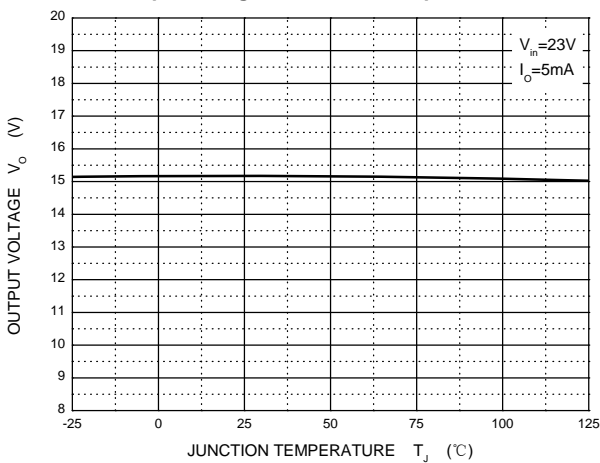
Quiescent Current vs Input Voltage



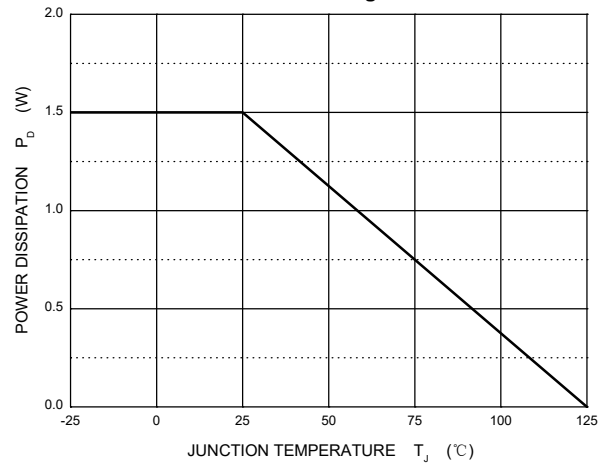
Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



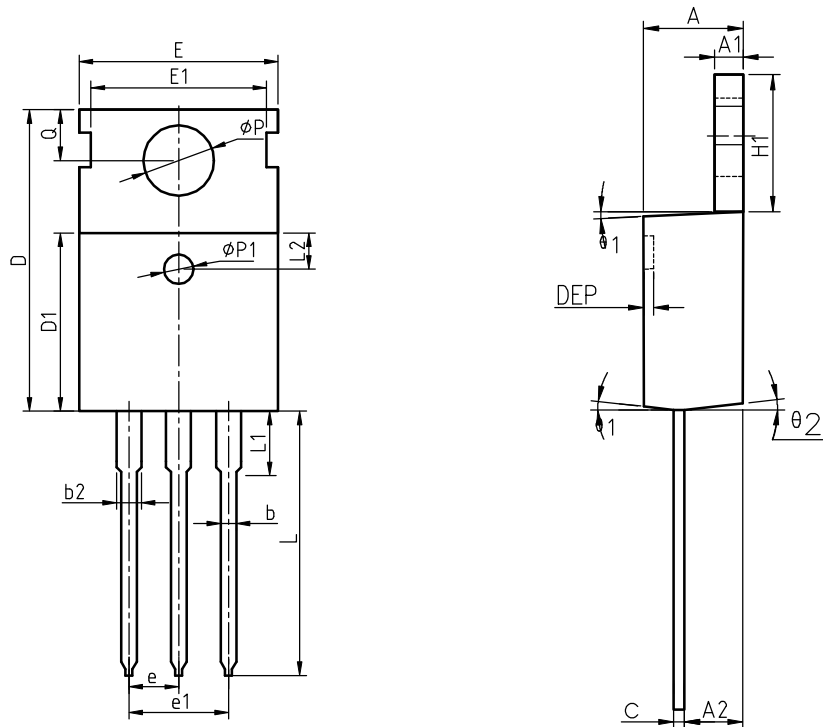
Power Derating Curve





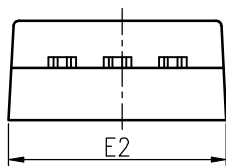
## Package Information

### 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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