

Features

● Maximum output current: Ioм= 1A

Output voltage: V_{O=} 12V

Continuous total dissipation: PD: 1.5 W (Ta= 25 °C)



Maximum Ratings (Ta=25℃ unless otherwise noted)

TO-220S

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

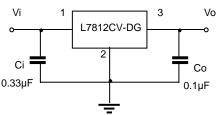
Electrical Characteristics (Ta=25°C unless otherwise specified)

(V_i=-19V, Io=500mA, C_i=2.2μF,Co=1μF, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Тур	Max	Unit
			25°C	11.5	12.0	12.5	V
Output Voltage	Vo	Io= 5mA-1A,	-25-125°C	11 1	12.0	10.6	V
		14.5V≤ V _i ≤27V	-25-125 C	11.4	12.0	12.6	V
Load Damilatian	41/2	I _O =5mA -1.5A	25°C		10	240	mV
Load Regulation	ΔVo	I _O =250mA - 750mA	25°C		3	120	mV
Line Regulation	ΔVο	14.5V≤ Vi≤30V	25°C		12	240	mV
Line Negulation	Δνο	16V≤V _i ≤22V	25°C		4	120	mV
Quiescent Current	Iq		25°C		4.3	8	mA
0. '	41-	5.0mA≤ I _O ≤1.0A	-25-125°C			0.5	mA
Quiescent Current Change	Δlq	14.5V ≤V _i ≤ 30V	-25-125°C			1.0	mA
Output Voltage Drift	△Vo/△T	I _O =5mA	-25-125°C		-1		mV/°C
Output Noise Voltage	V _N	f =10Hz to 100KHz	25°C		75		μV/Vo
Ripple Rejection	RR	f =120Hz, 15V≤ V _i ≤25V	-25-125°C	55	71		dB
Dropout Voltage	V_d	I _O =1.0A	25°C		2		V
Output Resistance	Ro	f = 1KHz	-25-125°C		18		mΩ
Short Circuit Current	Isc		25°C		350		mA
Peak Current	lpk		25°C		2.2		Α

^{*} Pulse test.

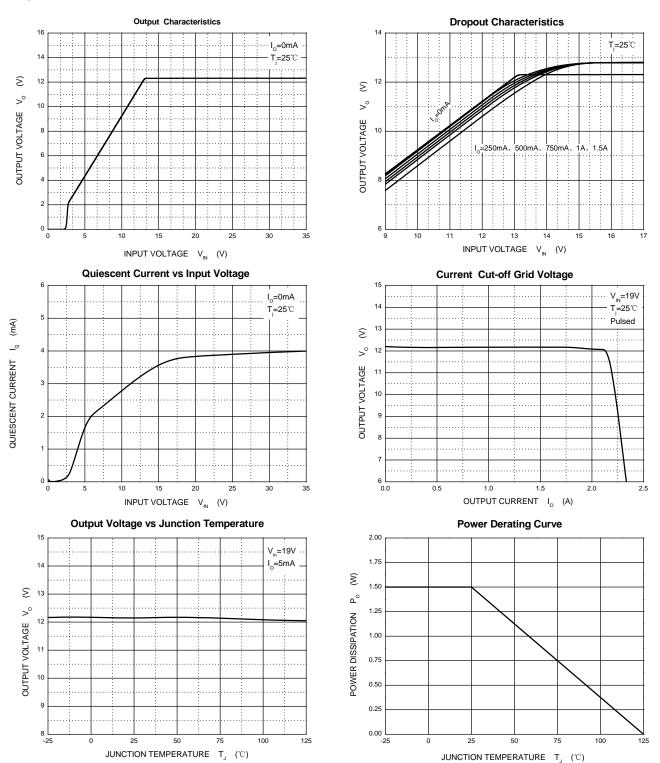
Typical Application



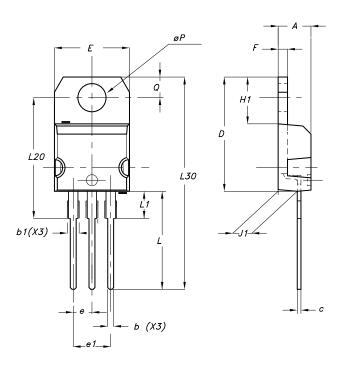
Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.



Typical Characteristics



Package Information TO-220S



DIM. MIN.		mm.			inch	
	MIN.	TYP	MAX.	MIN.	TYP.	MAX.
Α	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
С	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
е	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	
øΡ	3.75		3.85	0.147		0.151
Q	2.65		2.95	0.104		0.116



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