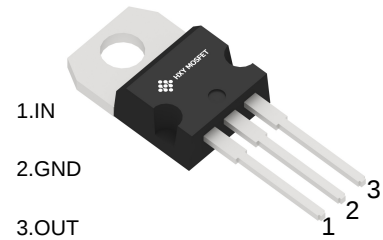




Features

- Maximum output current: $I_{OM}=1A$
- Output voltage: $V_O=12V$
- Continuous total dissipation: $P_D: 1.5W$ ($T_a=25^\circ C$)



Maximum Ratings ($T_a=25^\circ C$ 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	$^\circ C/W$
Operating Junction Temperature Range	T_{OPR}	-25~+125	$^\circ C$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ C$

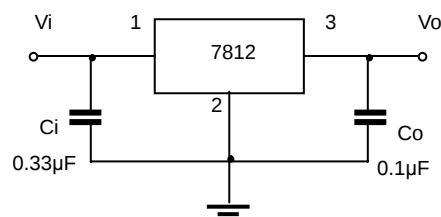
Electrical Characteristics ($T_a=25^\circ C$ unless otherwise specified)

($V_i=-19V$, $I_o=500mA$, $C_i=2.2\mu F$, $C_o=1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output Voltage	Vo		25°C	11.5	12.0	12.5	V
		Io= 5mA-1A, 14.5V≤ Vi≤27V	-25-125°C	11.4	12.0	12.6	V
Load Regulation	ΔVo	Io=5mA -1.5A	25°C		10	240	mV
		Io=250mA - 750mA	25°C		3	120	mV
Line Regulation	ΔVo	14.5V≤ Vi≤30V	25°C		12	240	mV
		16V≤Vi≤22V	25°C		4	120	mV
Quiescent Current	Iq		25°C		4.3	8	mA
Quiescent Current Change	ΔIq	5.0mA≤ Io ≤1.0A	-25-125°C			0.5	mA
		14.5V ≤Vi≤ 30V	-25-125°C			1.0	mA
Output Voltage Drift	△Vo/△T	Io=5mA	-25-125°C		-1		mV/°C
Output Noise Voltage	VN	f =10Hz to 100KHz	25°C		75		μV/Vo
Ripple Rejection	RR	f =120Hz, 15V≤ Vi ≤25V	-25-125°C	55	71		dB
Dropout Voltage	Vd	Io=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	Ipk		25°C		2.2		A

* Pulse test.

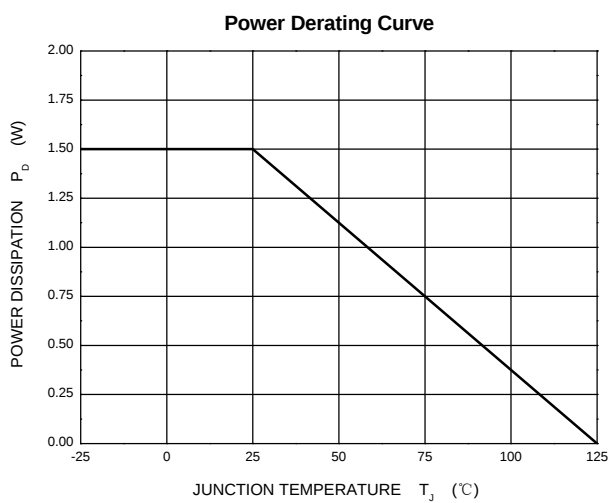
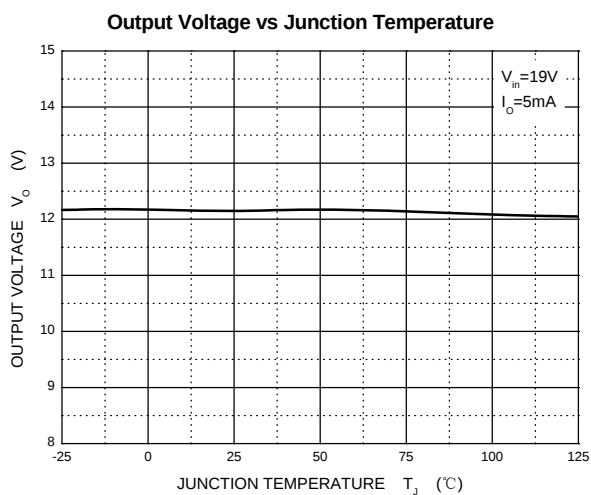
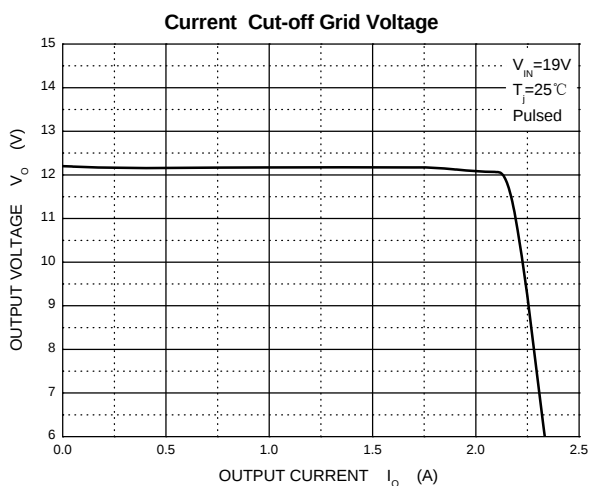
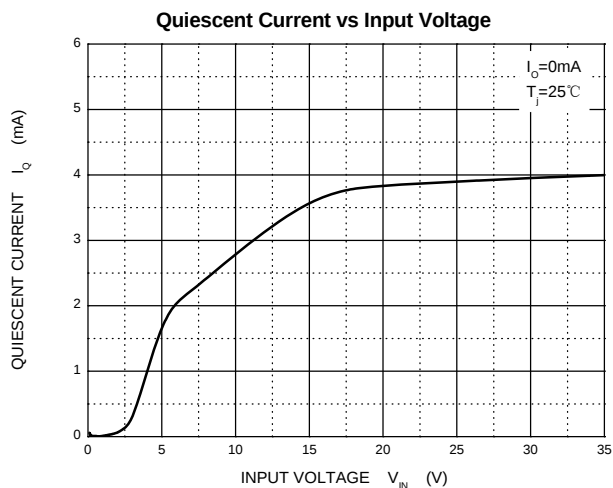
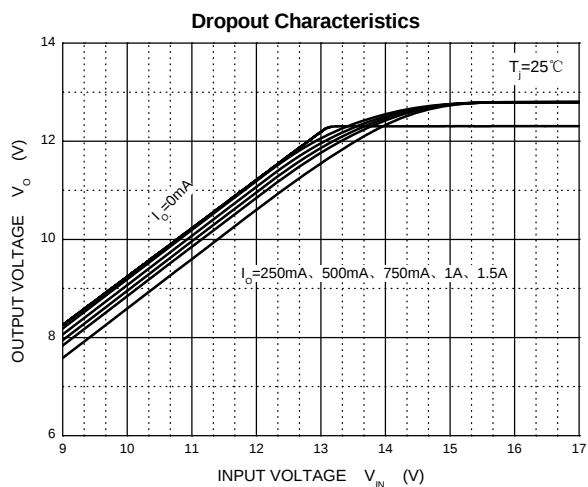
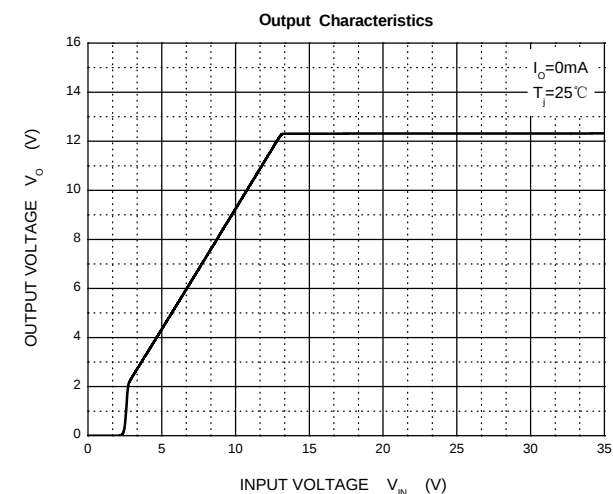
Typical Application



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

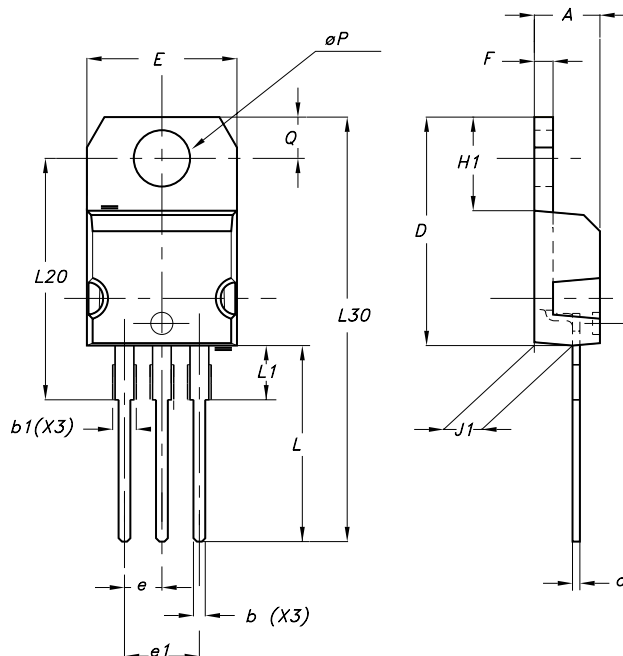


Typical Characteristics





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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