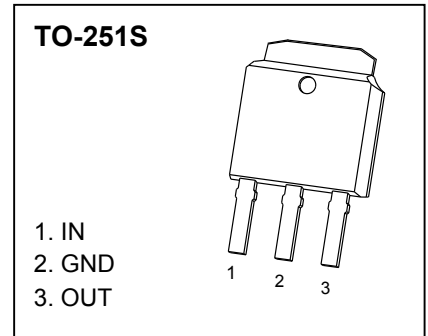


TO-251S Plastic-Encapsulate Voltage Regulators

CJ78M05 Three-terminal positive voltage regulator

FEATURES

- Maximum output current
I_{OM}: 0.5 A
- Output voltage
V_O: 5V
- Continuous total dissipation
P_D: 1.25 W (T_a= 25 °C)



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

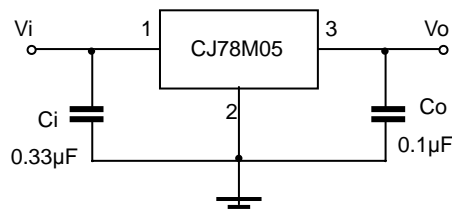
Parameter	Symbol	Value	Unit
Input Voltage	V _i	35	V
Thermal Resistance from Junction to Ambient	R _{θJA}	80	°C/W
Operating Junction Temperature Range	T _{OPR}	-40~+125	°C
Storage Temperature Range	T _{STG}	-65~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE (Vi=10V, Io=350mA, Ci=0.33μF, Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V _o	25°C	4.8	5	5.2	V
		7V ≤ V _i ≤ 20V, I _o = 5mA-350mA	-25~125°C	4.75	5	5.25
Load Regulation	ΔV _o	I _o = 5mA-0.5A	25°C	15	100	mV
		I _o = 5mA-200mA	25°C	5	50	mV
Line Regulation	ΔV _o	7V ≤ V _i ≤ 25V, I _o = 200mA	25°C	3	100	mV
		8V ≤ V _i ≤ 25V, I _o = 200mA	25°C	1	50	mV
Quiescent Current	I _q	25°C		4.2	6	mA
Quiescent Current Change	ΔI _q	8V ≤ V _i ≤ 25V, I _o = 200mA	-25~125°C		0.8	mA
	ΔI _q	5mA ≤ I _o ≤ 350mA	-25~125°C		0.5	mA
Output Noise Voltage	V _N	10Hz ≤ f ≤ 100KHz	25°C	40	200	μV/V _o
Ripple Rejection	RR	8V ≤ V _i ≤ 18V, f = 120Hz, I _o = 300mA	-25~125°C	62	80	dB
Dropout Voltage	V _d	I _o = 350mA	25°C	2	2.5	V
Short Circuit Current	I _{sc}	V _i = 10V	25°C	300		mA
Peak Current	I _{pk}		25°C	0.5		A

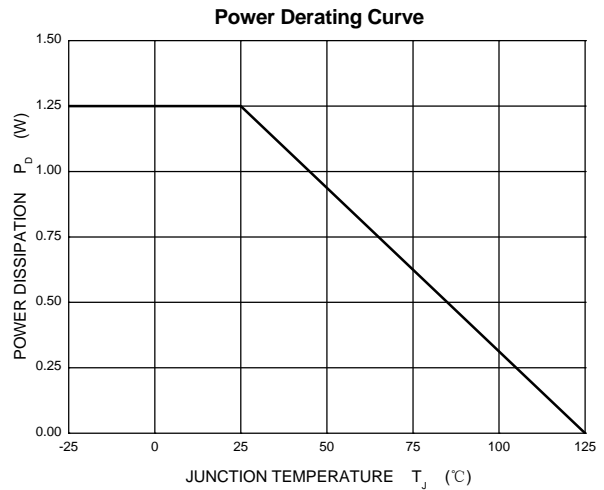
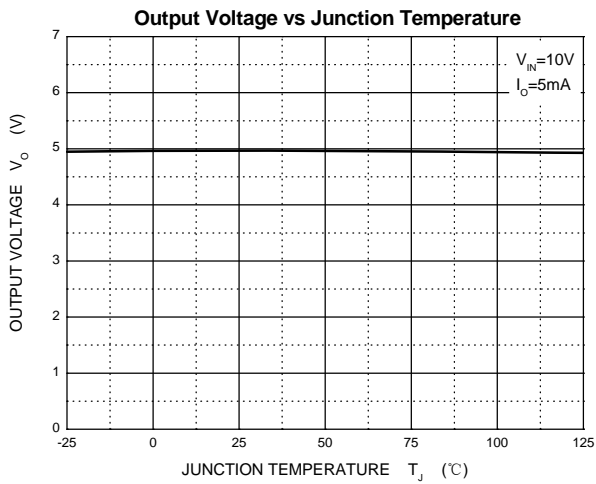
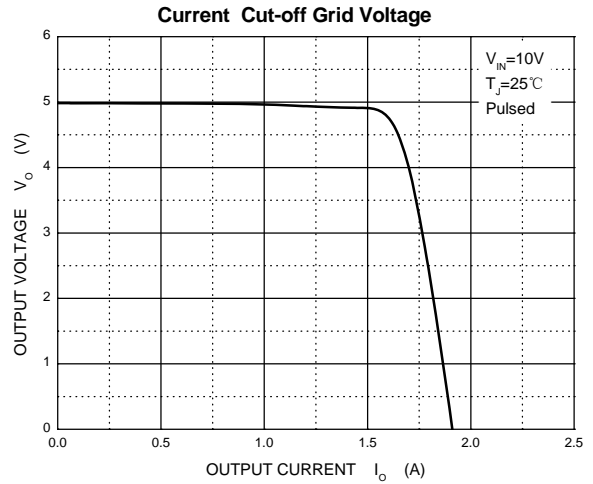
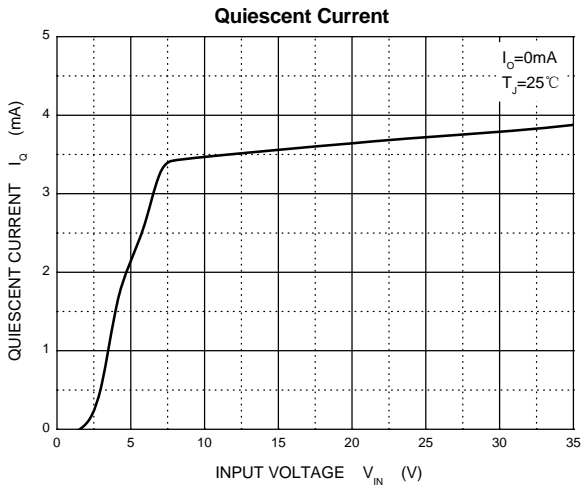
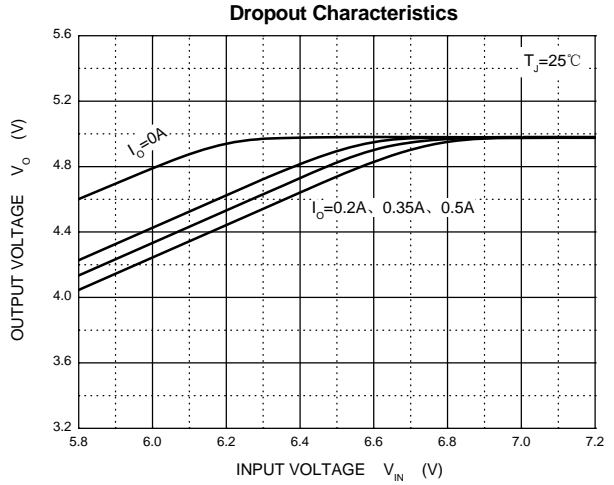
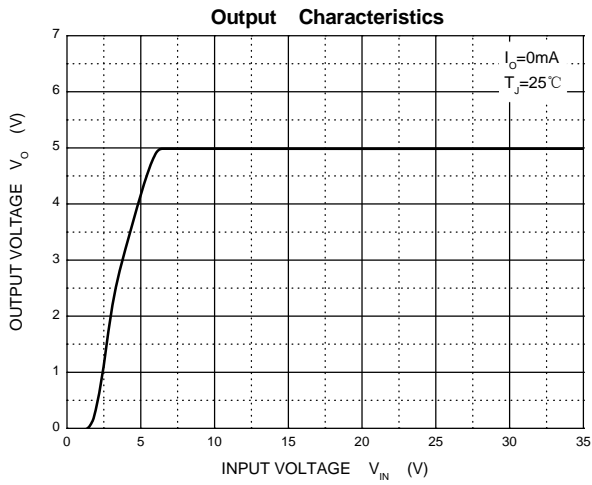
* Pulse test.

TYPICAL APPLICATION

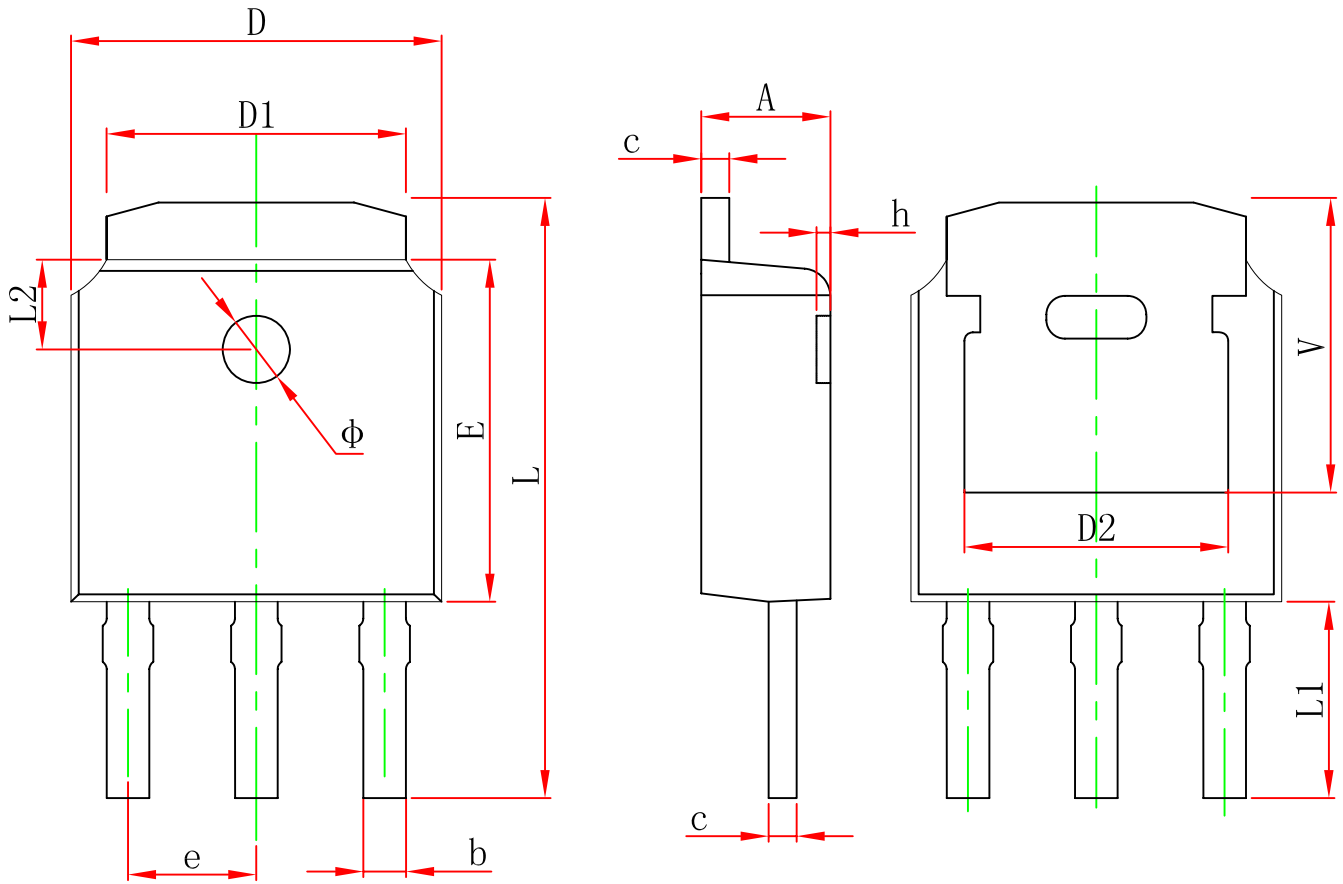


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Typical Characteristics



TO-251S Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
b	0.660	0.860	0.026	0.034
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	10.312	10.912	0.406	0.430
L1	3.300	3.700	0.130	0.146
L2	1.600 REF.		0.063 REF.	
φ	1.100	1.300	0.043	0.051
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	