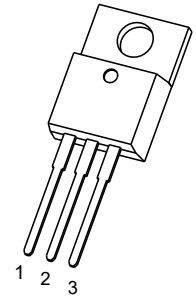
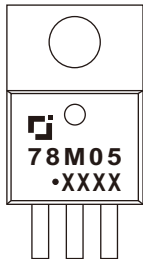


**TO-220-3L Plastic-Encapsulate Voltage Regulator****CJ78M05** Three-terminal positive voltage regulator**FEATURES**

- Maximum output current
 I_{OM} : 0.5 A
- Output voltage
 V_O : 5V
- Continuous total dissipation
 P_D : 1.5 W ($T_a = 25\text{ }^{\circ}\text{C}$)

TO-220-3L

1. IN
2. GND
3. OUT

**MARKING**

78M05=Device code
Solid dot = Green molding compound device
if none, the normal device.
XXXX = Code

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	$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_{OPR}	-40~+125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^{\circ}\text{C}$

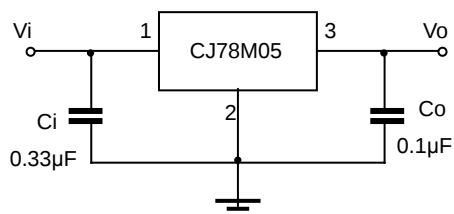
Electrical Characteristics

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=10V, I_o=350mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_J=25^\circ C$	4.85	5	5.15	V
		$7V \leq V_i \leq 20V, I_o=5mA-350mA$	4.75	5	5.25	V
Load Regulation	ΔV_o	$I_o=5mA-0.5A, T_J=25^\circ C$		15	100	mV
		$I_o=5mA-200mA, T_J=25^\circ C$		5	50	mV
Line Regulation	ΔV_o	$7V \leq V_i \leq 25V, I_o=200mA, T_J=25^\circ C$		3	100	mV
		$8V \leq V_i \leq 25V, I_o=200mA, T_J=25^\circ C$		1	50	mV
Quiescent Current	I_q	$T_J=25^\circ C$		4.2	6	mA
Quiescent Current Change	ΔI_q	$8V \leq V_i \leq 25V, I_o=200mA$			0.8	mA
	ΔI_q	$5mA \leq I_o \leq 350mA$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100kHz, T_J=25^\circ C$		40	200	$\mu V/V_o$
Ripple Rejection	RR	$8V \leq V_i \leq 18V, f=120Hz, I_o=300mA$	62	80		dB
Dropout Voltage	V_d	$I_o=350mA, T_J=25^\circ C$		2	2.5	V
Short Circuit Current	I_{sc}	$V_i=10V, T_J=25^\circ C$		300		mA
Peak Current	I_{pk}	$T_J=25^\circ C$		0.5		A

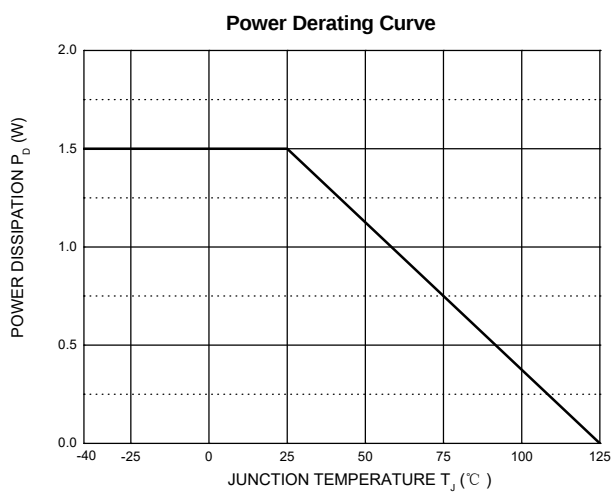
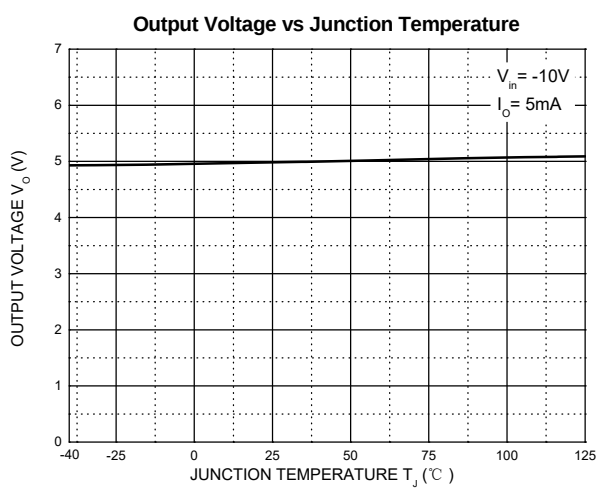
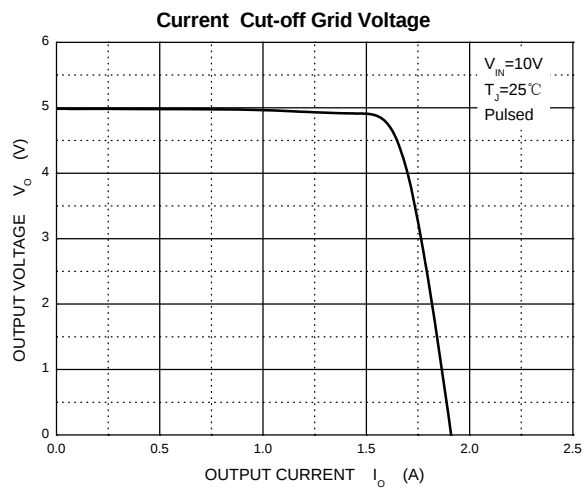
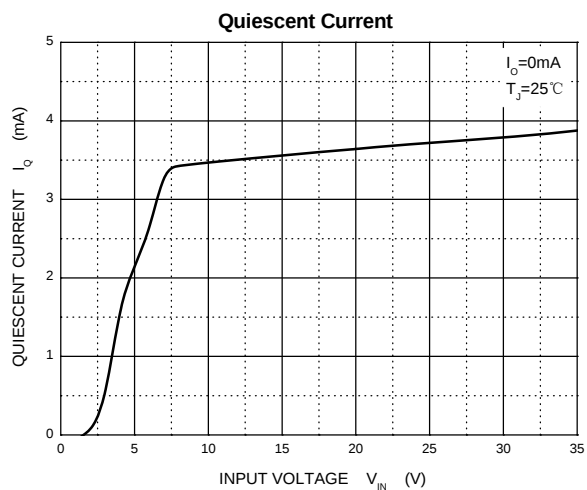
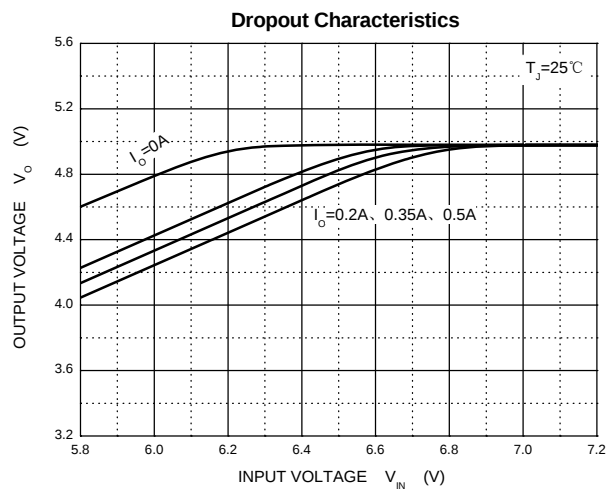
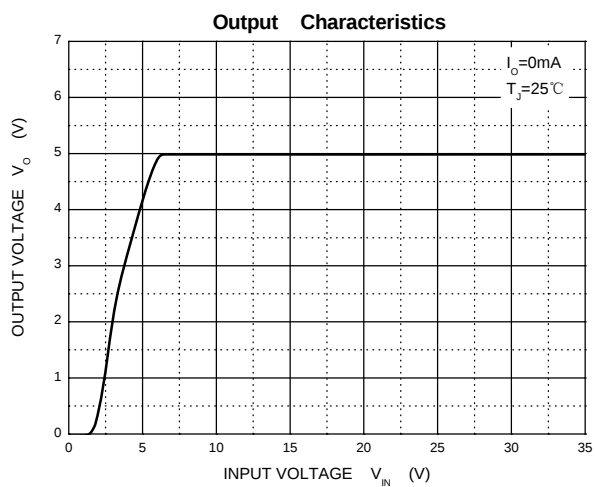
* Pulse test.

TYPICAL APPLICATION

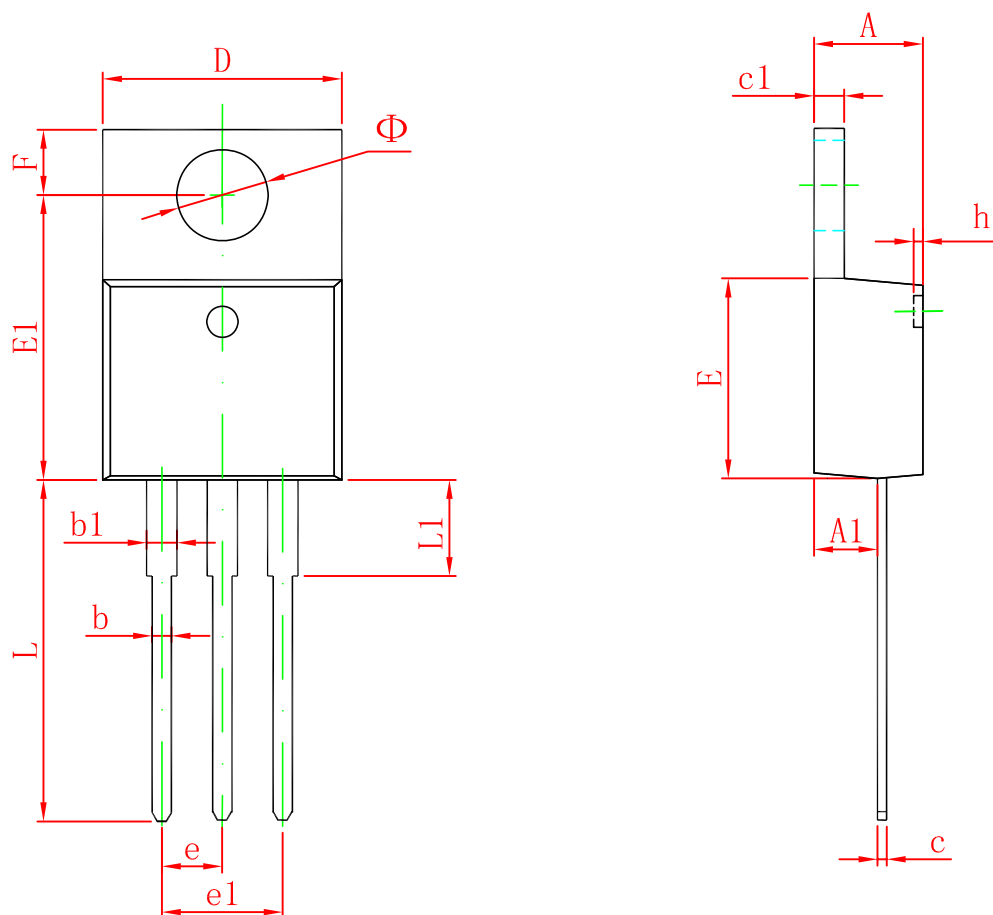


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Typical Characteristics



TO-220-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.470	4.670	0.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540 TYP		0.100 TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
h	0.000	0.300	0.000	0.012
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
Φ	3.735	3.935	0.147	0.155

DISCLAIMER

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