



TO-251-3L/TO-252-2L Plastic-Encapsulate Regulators

CJ78M06 Three-terminal positive voltage regulator

FEATURES

Maximum output current

I_{OM} : 0.5 A

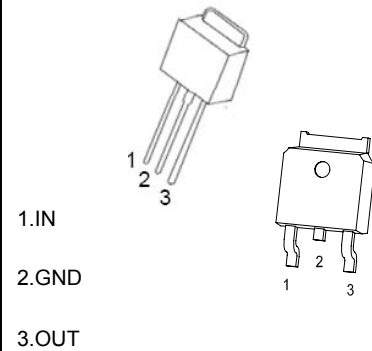
Output voltage

V_O : 6V

Continuous total dissipation

P_D : 1.25 W

TO-251-3L
TO-252-2L



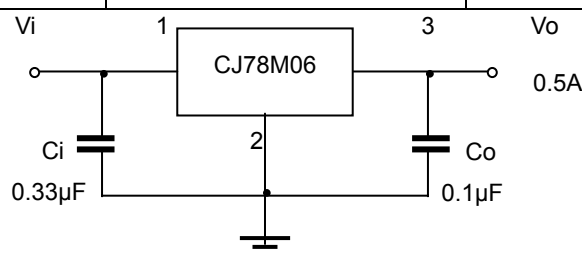
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

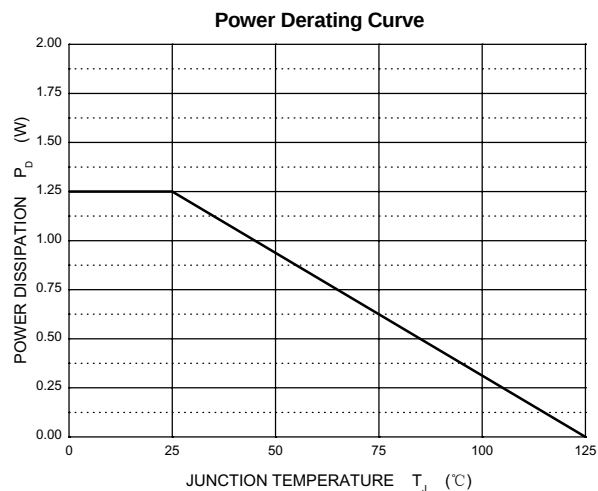
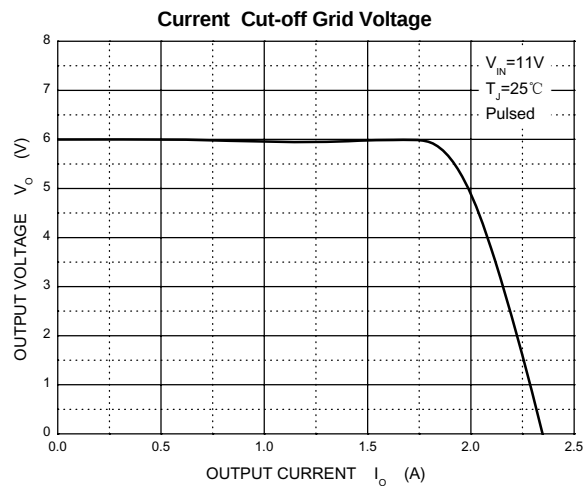
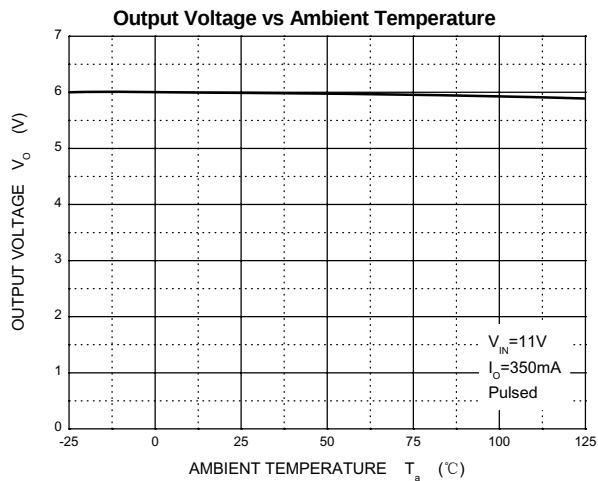
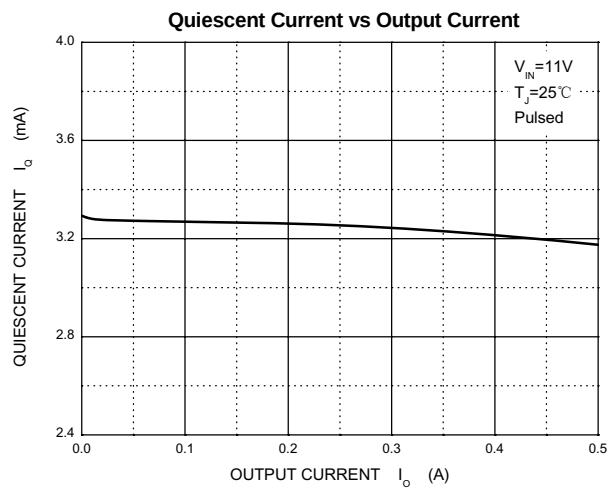
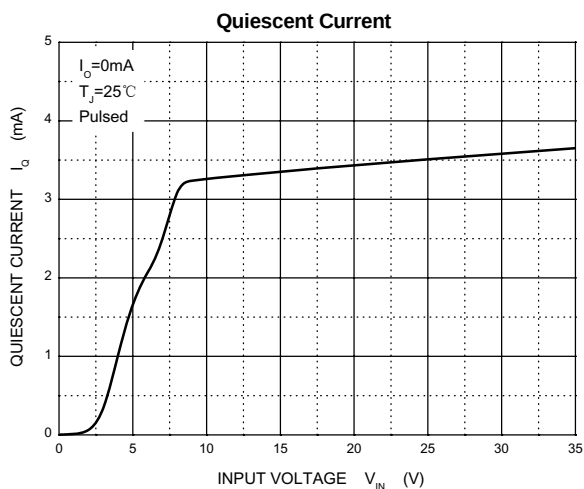
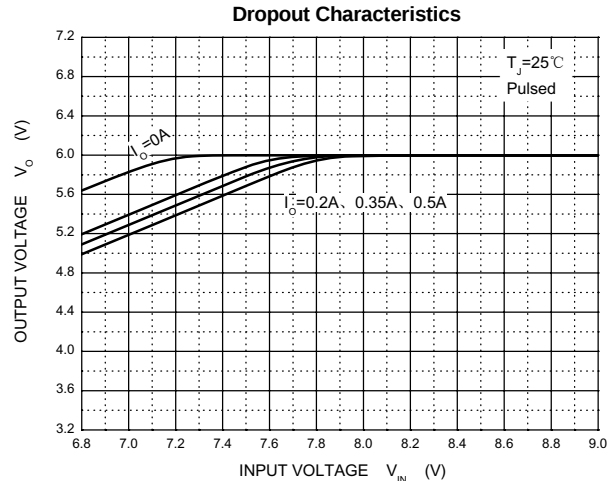
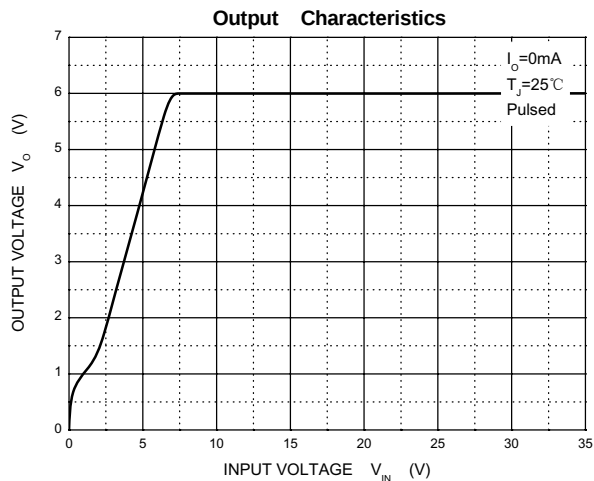
Parameter	Symbol	Value	Unit
Input Voltage	V_i	25	V
Operating Junction Temperature Range	T_{OPR}	0-+125	°C
Storage Temperature Range	T_{STG}	-65-+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=11V$, $I_O=350mA$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, unless otherwise specified)

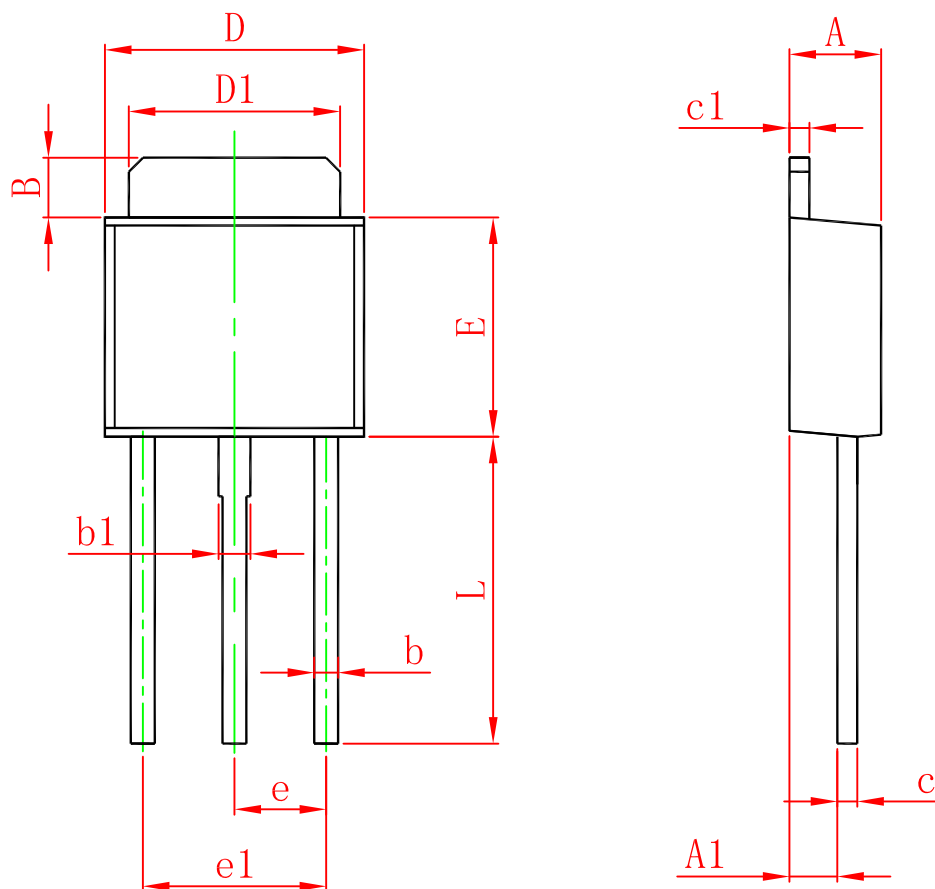
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_O	25°C	5.75	6	6.25	V
		8V ≤ V_i ≤ 21V, $I_O=5mA-350mA$ P_O ≤ 15W	5.7	6	6.3	V
Load Regulation	ΔV_O	$I_O=5mA-0.5A$ 25°C		18	120	mV
		$I_O=5mA-200mA$ 25°C		10	60	mV
Line Regulation	ΔV_O	8V ≤ V_i ≤ 25V, $I_O=200mA$ 25°C		5	100	mV
		9V ≤ V_i ≤ 25V, $I_O=200mA$ 25°C		1.5	50	mV
Quiescent Current	I_q	25°C		4.3	6	mA
Quiescent Current Change	ΔI_q	9V ≤ V_i ≤ 25V, $I_O=200mA$ 0-125°C			0.8	mA
	ΔI_q	5mA ≤ I_O ≤ 350mA 0-125°C			0.5	mA
Output Noise Voltage	V_N	10Hz ≤ f ≤ 100KHz 25°C		45		uV
Ripple Rejection	RR	9V ≤ V_i ≤ 19V, f=120Hz, $I_O=300mA$ 0-125°C	59	80		dB
Dropout Voltage	V_d	$I_O=350mA$ 25°C		2		V
Short Circuit Current	I_{sc}	$V_i=11V$ 25°C		270		mA
Peak Current	I_{pk}	25°C		0.5		A

TYPICAL APPLICATION



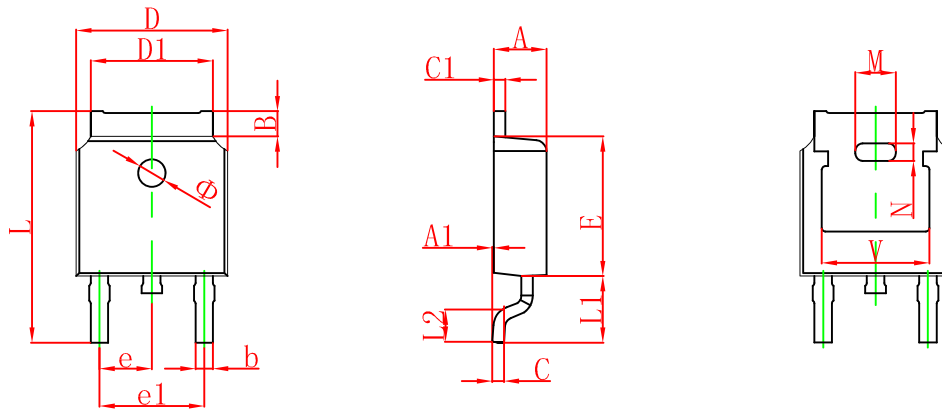


TO-251-3L Package Outline Dimensions



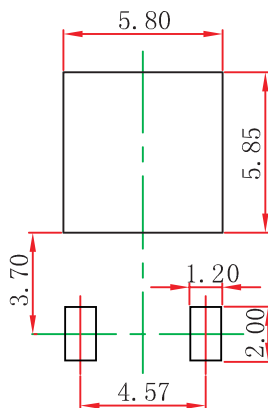
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	1.050	1.350	0.042	0.054
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300 TYP.		0.091 TYP.	
e1	4.500	4.700	0.177	0.185
L	7.500	7.900	0.295	0.311

TO-252(4R)-2L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.380	0.087	0.094
A1	0.000	0.100	0.000	0.004
B	0.800	1.400	0.031	0.055
b	0.710	0.810	0.028	0.032
c	0.460	0.560	0.018	0.022
c1	0.460	0.560	0.018	0.022
D	6.500	6.700	0.256	0.264
D1	5.130	5.460	0.202	0.215
E	6.000	6.200	0.236	0.244
e	2.286 TYP.		0.090 TYP.	
e1	4.327	4.727	0.170	0.186
M	1.778 REF.		0.070 REF.	
N	0.762 REF.		0.018 REF.	
L	9.800	10.400	0.386	0.409
L1	2.9 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
V	4.830 REF.		0.190 REF.	
Φ	1.100	1.300	0.043	0.051

TO-252(4R)-2L Suggested Pad Layout



Note:

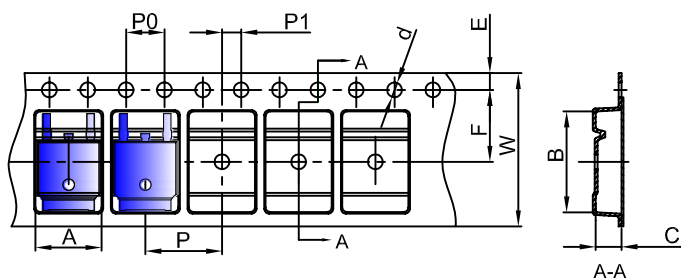
1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

NOTICE

JCET reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JCET does not assume any liability arising out of the application or use of any product described herein.

TO-252 Tape and reel

TO-252 Embossed Carrier Tape

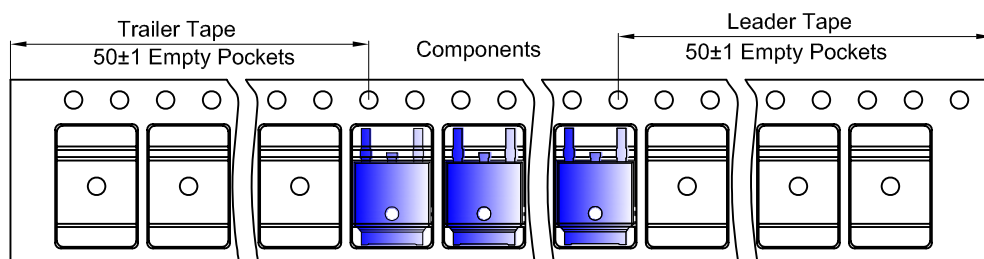


Packaging Description:

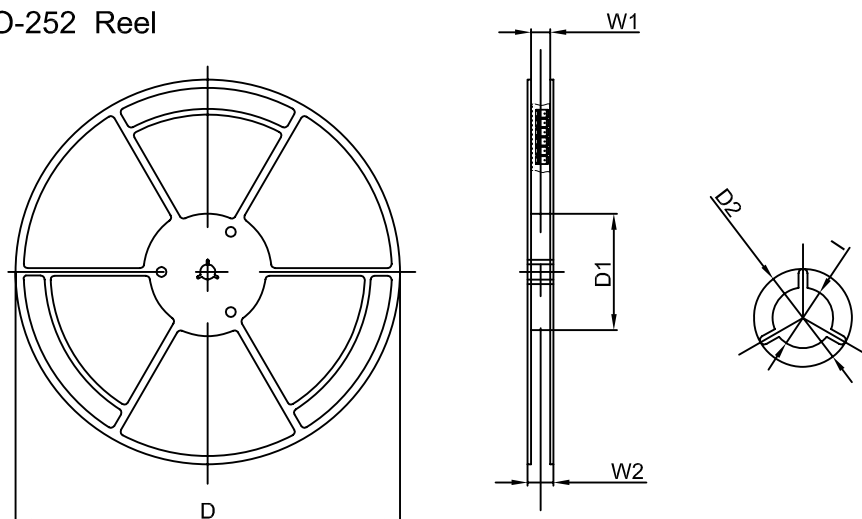
TO-252 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 25,00 units per 13" or 33.0 cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
TO-252	6.90	10.50	2.70	Ø1.55	1.75	7.50	4.00	8.00	2.00	16.00
(Tolerance)	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+0.3/-0.1

TO-252 Tape Leader and Trailer



TO-252 Reel



Dimensions are in millimeter						
Reel Option	D	D1	D2	W1	W2	I
13"Dia	330.00	100.00	Ø21.00	16.40	21.00	Ø13.00
Tolerance	+/-2	+/-1	+/-1	+/-1	+/-1	+/-1

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
2,500 pcs	13inch	2,500 pcs	340×336×29	25,000 pcs	353×346×365	14.04