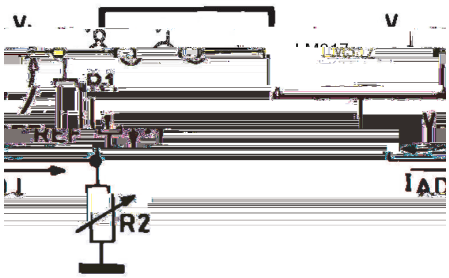
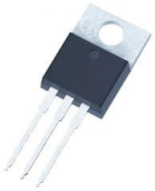
TO-220 Voltage Regulator in a TO-220 Plastic Package.

1.5A, 1.2 37V

3-Terminal regulators ,output current in excess of 1.5 A, output voltage adjustable over a 1.2-37V.

Voltage Regulator.



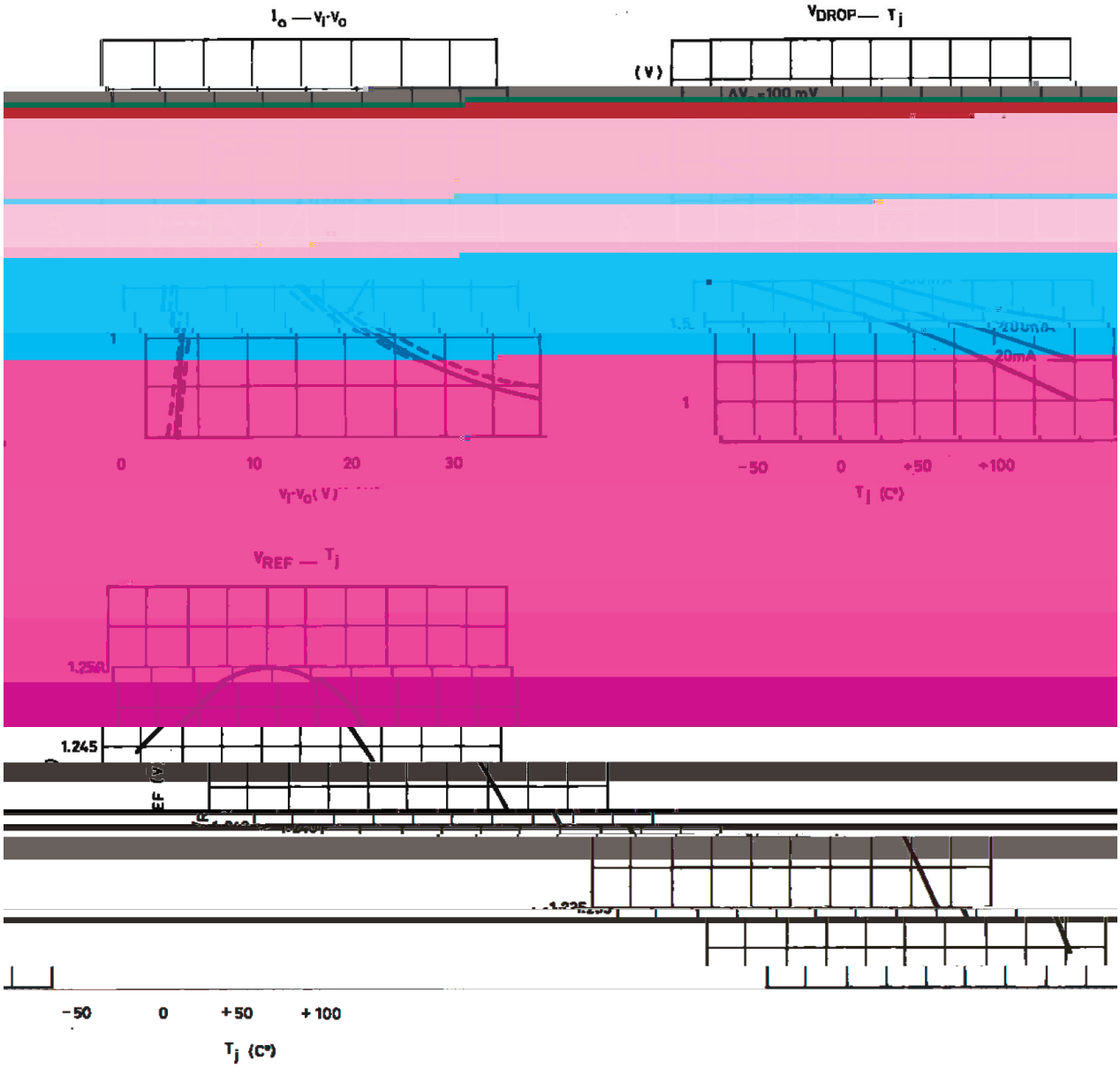


PIN1 ADJ PIN 2 OUT PIN 3 IN

See Marking Instructions

Parameter	Symbol	Rating	Unit
Input - Output Voltage Difference	V_{i-o}	40	V
Output Current	I_O	Internally Limited	A
Operating Junction Temperature Range	T_J	0 125	
Power Dissipation	P_{tot}	Internally Limited	W
Storage temperature range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Line regulation	V_o	V_i-V_o=3to40V T_J=25		0.01	0.04	%/V
		V_i-V_o=3to40V		0.02	0.07	%/V
Load Regulation	V_o	V_o≤5V I_o=10mAtoI_{MAX} T_J=25		5	25	mV
		V_o≤5V I_o=10mAtoI_{MAX}		20	70	mV
		V_o≥5V I_o=10mAtoI_{MAX} T_J=25		0.1	0.5	%
		V_o≥5V I_o=10mAtoI_{MAX}		0.3	1.5	%
Adjustable Pin Current	I_{ADJ}			50	100	μA
Adjustable Pin Current Change	I_{ADJ}	V_i-V_o=2.5to40V I_o=10mAtoI_{MAX}		0.2	5	μA
Reference Voltage	V_{REF}	V_i-V_o=2.5to40V I_o=10mAtoI_{MAX} P_D≤P_{MAX}	1.2	1.25	1.3	V
Line Regulation	$\frac{V_O}{V_O}$			1		%
Minimum Load Current for Regulation	$I_{o(min)}$	V_i-V_o=40V		3.5	10	mA
Maximum Output Current	$I_{O(max)}$	V_i-V_o≤15V P_D P_{MAX}	1.5	2.2		A
		V_i-V_o=40V P_D P_{MAX} T_J=25		0.4		A
RMS Noise vs. %of VOUT	e_N	B=10Hzto10KHz T_J=25		0.003		%
Ripple Rejection	SVR	T_J=25 f=120Hz C_{ADJ}=0		65		dB
		C_{ADJ}=10μF	66	80		dB


I_o — V_I-V_o
V_{DROP} — T_j
(V)
ΔV = 100 mV
1
0
10
20
30
V_I-V_o (V)
1
20mA
−50
0
+50
+100
T_j (C°)
V_{REF} — T_j
1.250
1.245
−50
0
+50
+100
T_j (C°)

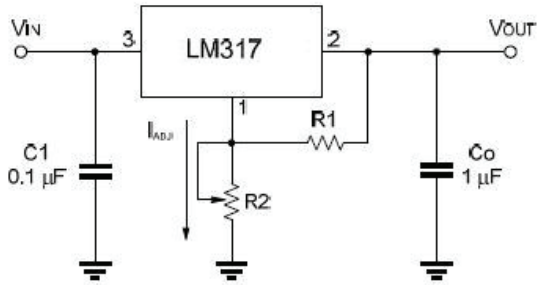


Fig.1 Programmable voltage regulator

$V_{OUT} = 1.25V(1+R2/R1)+I_{ADJ}R2$

C1 is required when regulator is located an appreciated distance from power

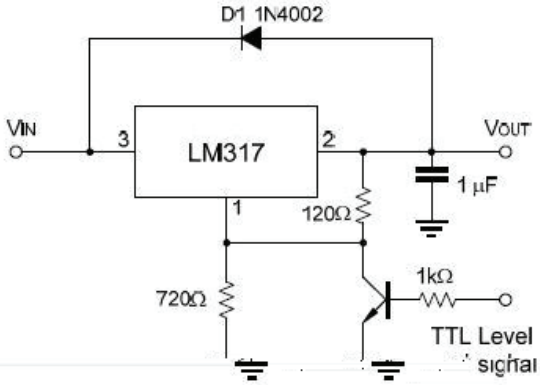
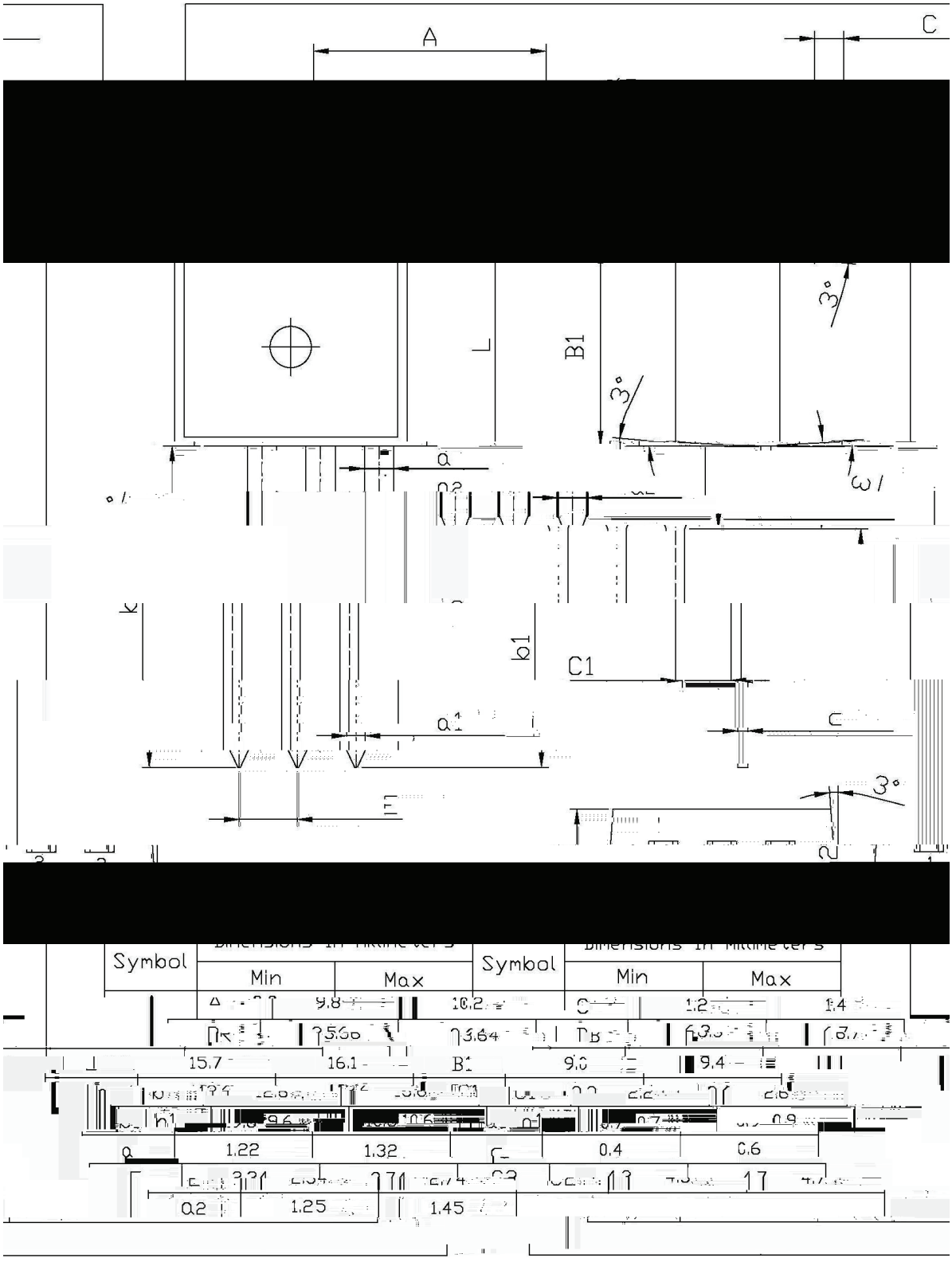
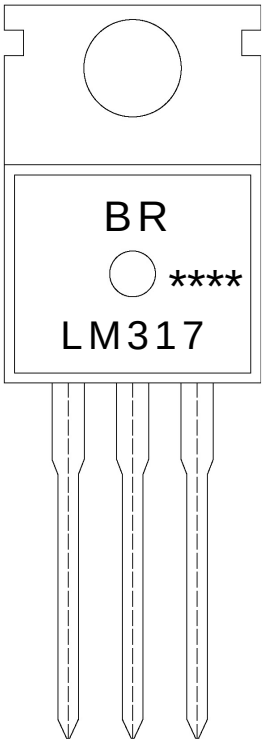


Fig.2 Regulator with On-off control

TO-220 单位：


A
C
L
B1
3°
3°
a
a2
b1
C1
a1
c
3°
Symbol
Min
Max
Symbol
Min
Max
9.8
10.2
1.2
1.4
15.7
16.1
B1
9.0
9.4
1.22
1.32
0.4
0.6
0.2
1.25
1.45



BR

LM317

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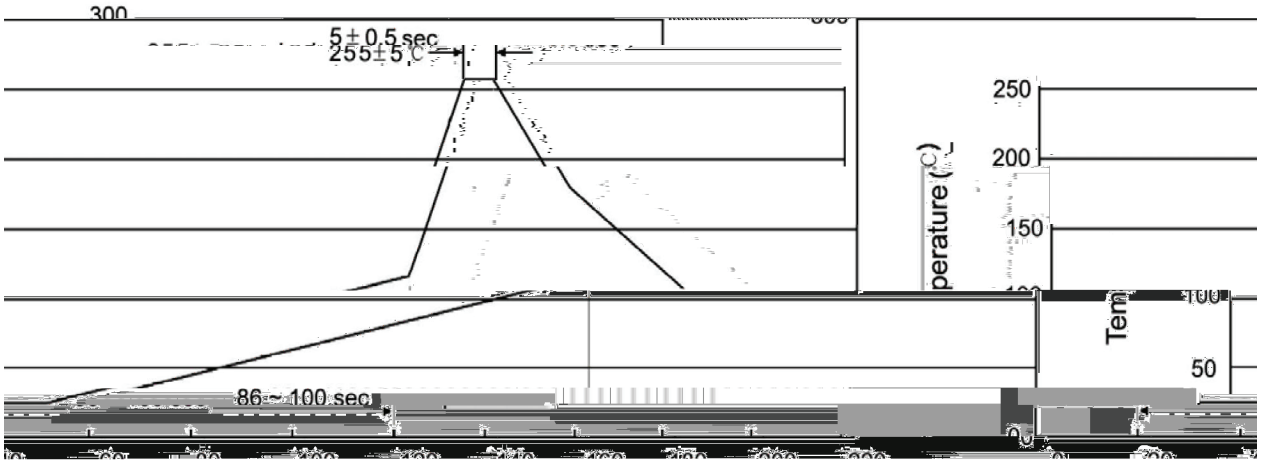
Note:

BR:	Company Code.
LM317:	Product Type.
****:	Lot No. Code, code change with Lot No.



Note:

1 25 150 60 90sec;

1.Preheating:25~150 , Time:60~90sec.

2 255±5 5±0.5sec;

2.Peak Temp.:255±5 , Duration:5±0.5sec.

3 2 10 /sec.

3. Cooling Speed: 2~10 /sec.

270±5 10±1 sec.

Temp:270±5 Time:10±1 sec

/ BULK

Package Type	Units					Dimension		(unit mm3)

/ TUBE

Package Type	Units	Dimension	(unit mm3)