LM317

Rev.H Oct.-2018

DATA SHEET

/ Descriptions

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

/ Features

1.5A, 1.2 37V

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

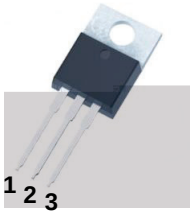
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 ADJ PIN 2 OUT PIN 3 IN

/ Marking

See Marking Instructions

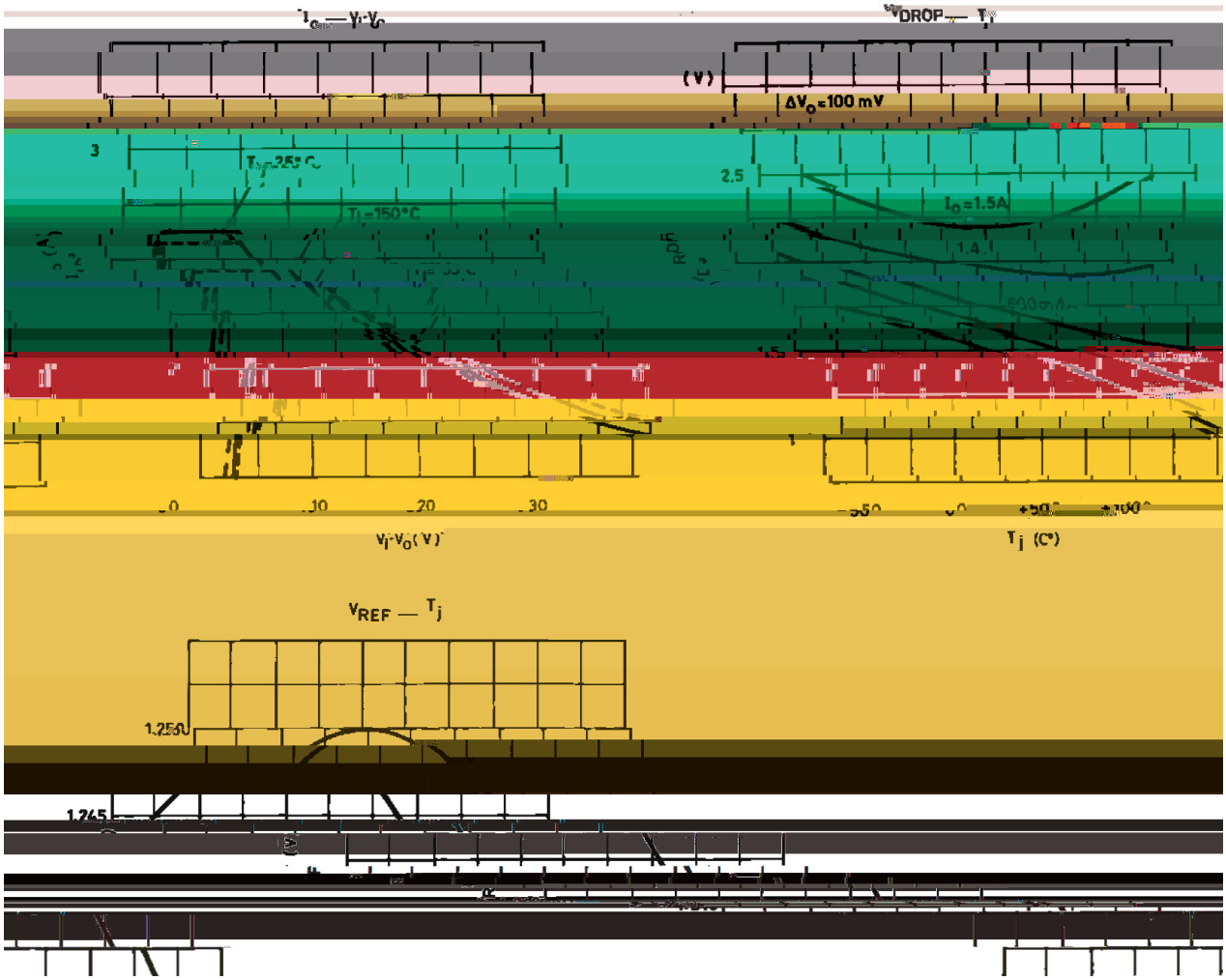
/ Absolute Maximum Ratings(Ta=25)

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	

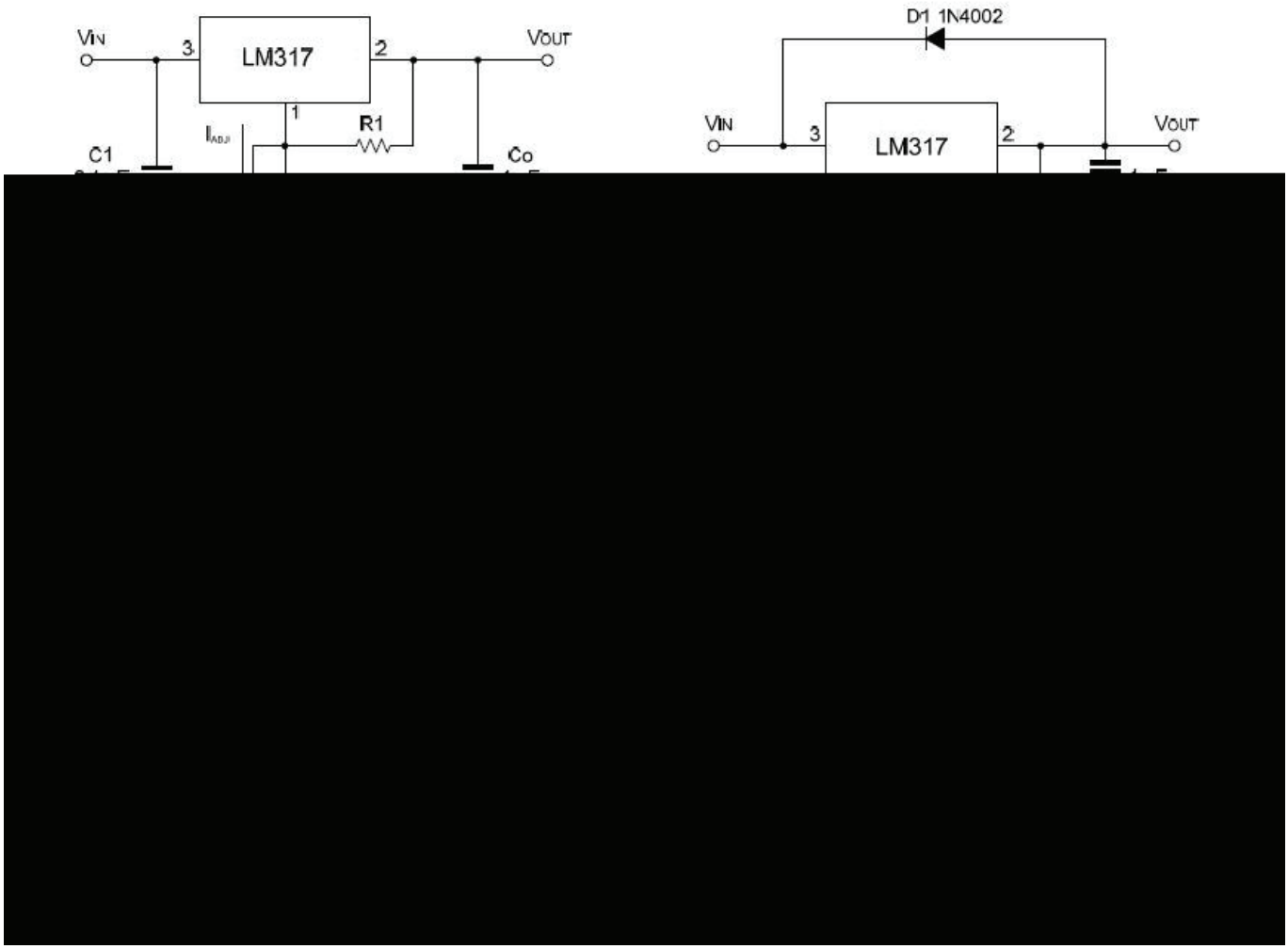
/ Electrical Characteristics(Ta=25)

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 C_{ADJ}=10μF		65		dB
			66	80		dB

/ Electrical Characteristic Curve

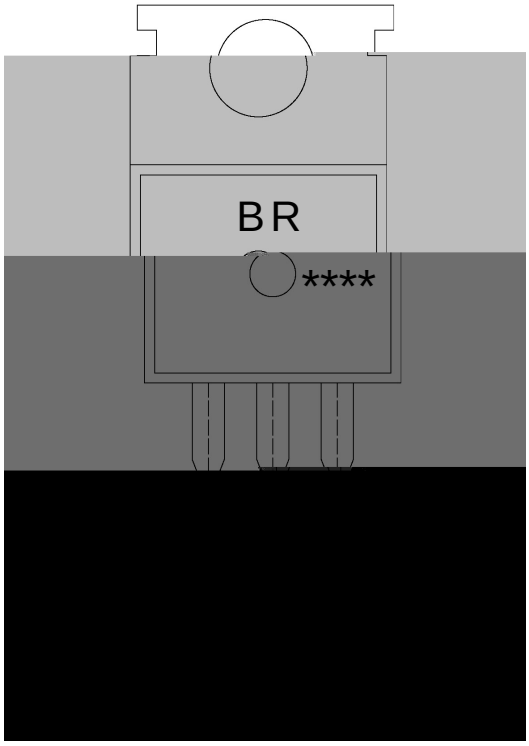


/ Internal circuit diagram



Rev.H-ts58 2.6 735.92 485.352158.6 ref57.66 735.92 474.66 158.6 refBT/T106 1 Tf10.5 0 0 10.5 7.66 740.4803 T

/ Marking Instructions



BR

LM317

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Note:

BR: Company o

LM317: Type.

****: e, code change with Lot No.