

/ Descriptions

TO-263 Voltage Regulator in a TO-263 Plastic Package.

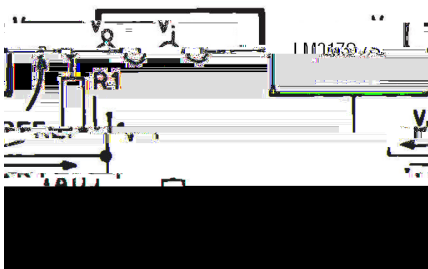
/ Features

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 4 OUT PIN 3 IN

/ Marking

See marking instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Input voltage	V_{i-o}	40	V
Output current	I_o	Internally Limited	
Operating virtual Junction temperature	T_j	0 125	
Power Dissipation	P_{tot}	Internally Limited	
Storage temperature range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25$		0.01	0.04	%/V
		$I_o=5mA$ to 1A $V_i=-20V$ to -7V		0.02	0.07	%/V
Load Regulation	V_o	$V_o \leq 5V$ $T_j=25$ $I_o=10mA$ to I_{MAX}		5	25	mV
		$V_o \leq 5V$ $I_o=10mA$ to I_{MAX}		20	70	mV
		$V_o \geq 5V$ $T_j=25$ $I_o=10mA$ to I_{MAX}		0.1	0.5	%
		$V_o \geq 5V$ $I_o=10mA$ to I_{MAX}		0.3	1.5	%
Adjustable Pin Current	I_{ADJ}			50	100	μA
Adjustable Pin Current Change	I_{ADJ}	$V_i-V_o=2.5$ to 40V $I_o=10mA$ to I_{MAX}		0.2	5.0	μA
Reference Voltage	V_{REF}	$V_i-V_o=2.5$ to 40V $I_o=10mA$ to I_{MAX} $P_D \leq P_{MAX}$	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	$I_{O(max)}$	$V_i-V_o \leq 15V$ 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	$B=10Hz$ to 10KHz $T_j=25$		0.003		%
Ripple Rejection	SVR	$T_j=25$ $f=120Hz$ $C_{ADJ}=0$		65		dB
		$T_j=25$ $f=120Hz$ $C_{ADJ}=10\mu F$	66	80		dB

/ Equivalent Circuit

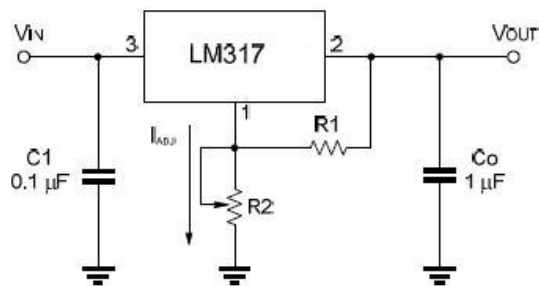
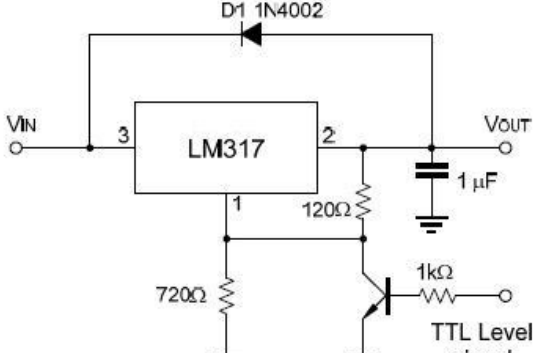


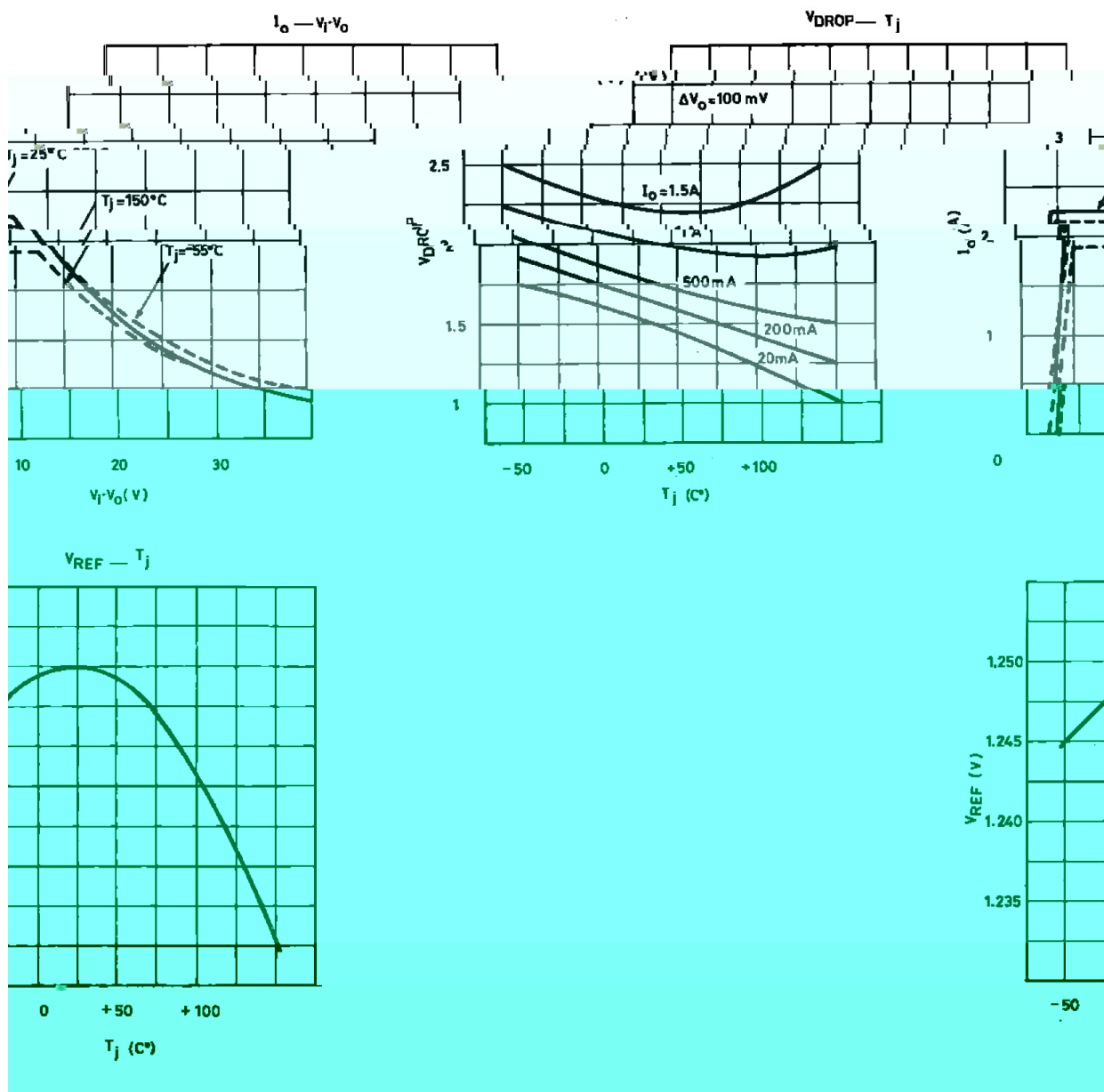
Fig.1 Programmable voltage regulator



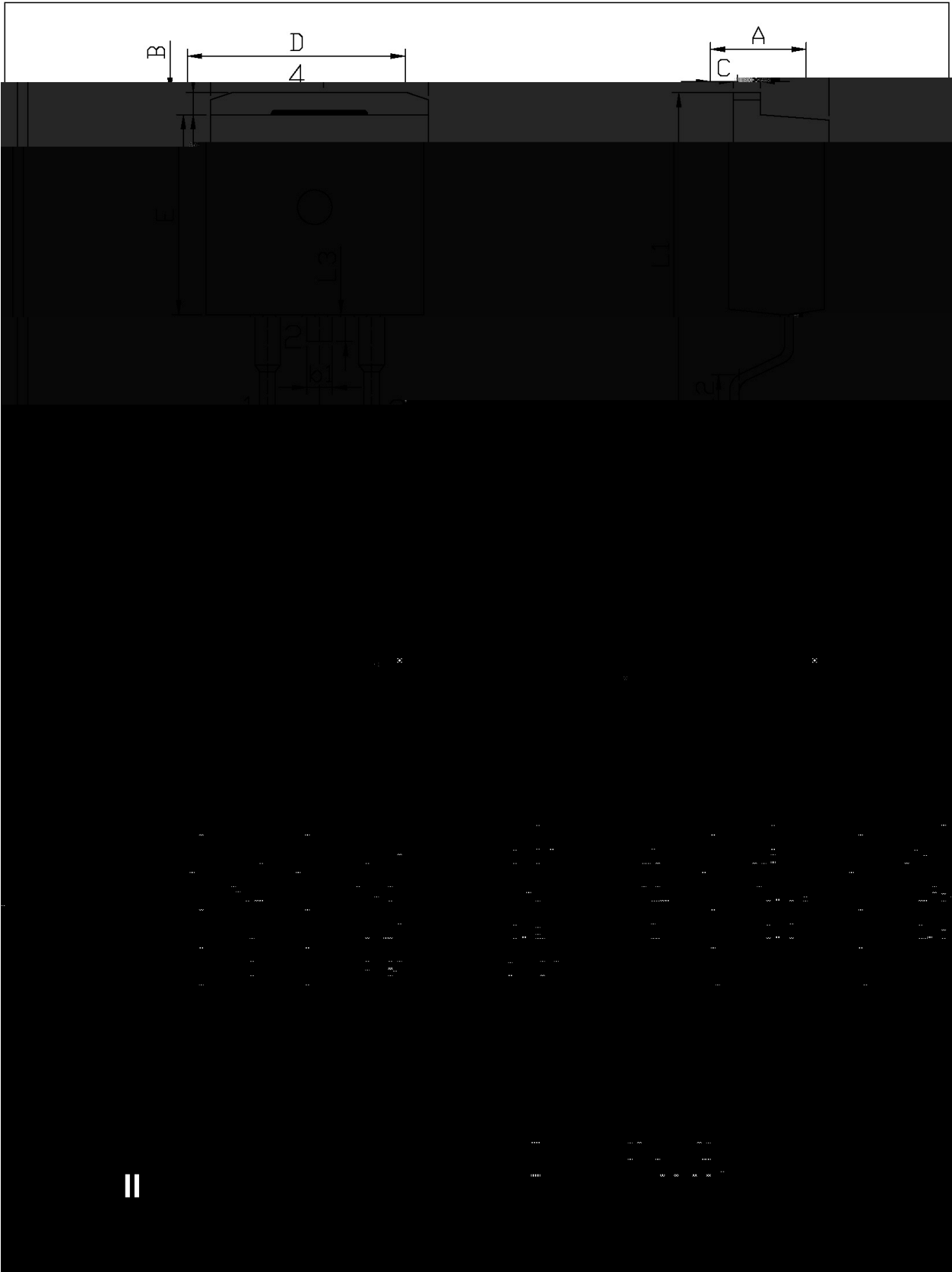
C1 is required when regulator is located
an appreciated distance from power

Fig.2 Rec

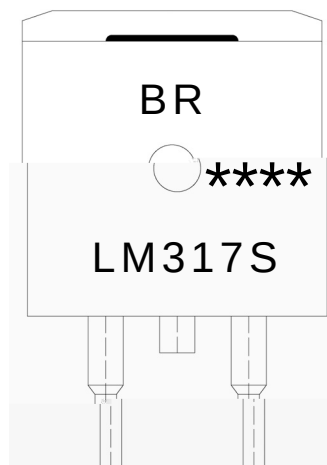
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

LM317S

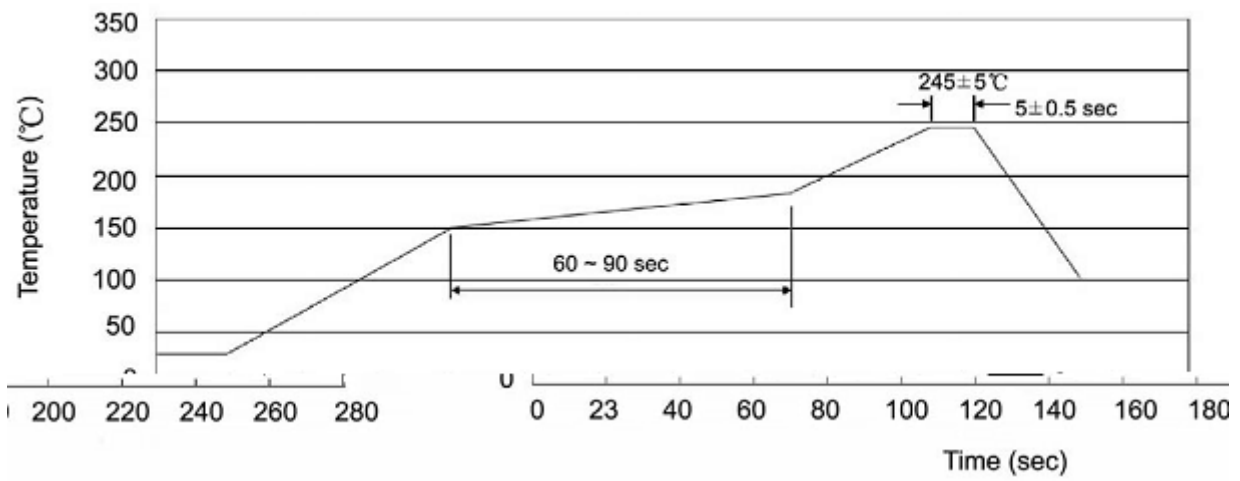
Note:

BR: Company Code.

LM317S: Product Type.

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

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1 25 150 60 90sec;
- 2

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