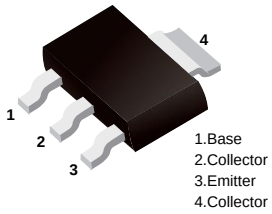
General Description

The LM317G are monolithic integrated circuit in SOT-223 packagesintended for use as positive adjustable oltage regulators.They are designed to supply more than 1.5A of load current with an output voltage adjustable over a 1.2 to 37V range.
The nominal output voltage is selected by means of only a resistive divider, making the device exceptionally easy to use and eliminatingthestocking of many fixed regulators



Simplified outline(SOT-223)

Features

- Output Voltage Range : 1.2 TO 37V
- Output Current in excess of 1.5A
- 0.1% Line and Load Regulation Voltages
- Floating Operation For High
- Complete Series of Protections:
  Current Limiting, Thermal Shudown and SOA Control

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings Ta = 25℃

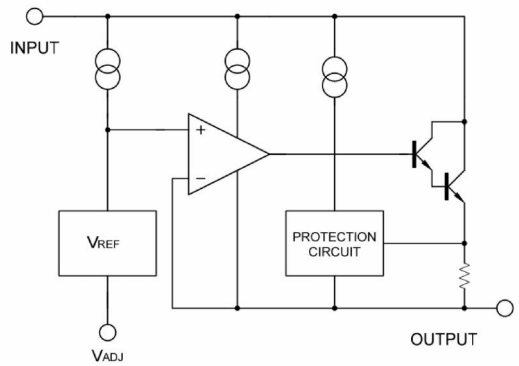
Symbol	Parameter	Value	Unit
V_{i-O}	Input-output Differential Voltage	40	V
I_O	Output Current	Intenrally Limited	
V_O	Out put Voltage	5	V
T_{OP}	Operating Junction Temperature	0～＋125	℃
T_{STG}	Storage Temperature	-60～＋150	℃

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

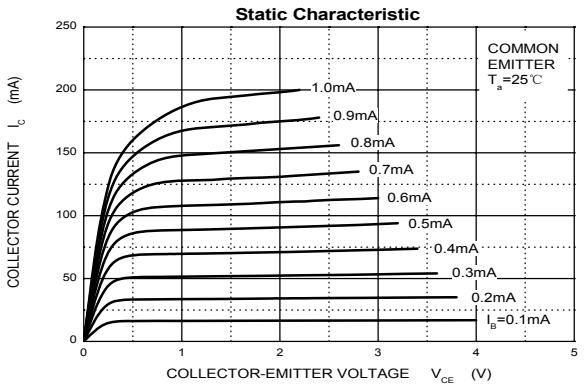
(Vi - Vo = 5 V, Io = 500 mA, I_{MAX} = 1.5A and P_{MAX} = 20W, unless otherwise specified)

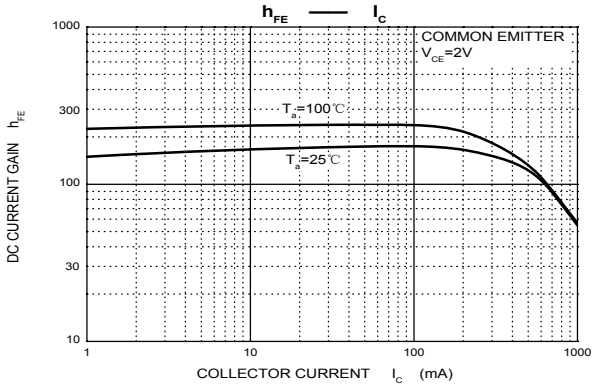
Parameter	Symbol	Conditions		Value			Unit
				Min	Typ	Max	
Line Regulation	ΔV_O	Vi-Vo=3 to 40V	Tj=25℃			0.04	%V
						0.07	
Load Regulation	ΔV_O	$V_o \leqslant 5V$ I_O = 10mA~I_{Max}1.5A	Tj=25℃			25	mV
						70	
		$V_o \geqslant 5V$ I_O = 10mA~I_{Max}1.5A	Tj=25℃			0.5	%V
						1.5	
Adjustment Pin Current	I_{ADJ}	Tj=25℃				100	μA
Adjustment Pin Current	ΔI_{ADJ}	Vi-Vo = 2.5 to 40V I_O = 10mA~I_{Max}1.5A				5	μA
Output Voltage Drift	$\Delta V / \Delta T$	I_O = 5mA			-0.8		mV/℃
Reference Voltage (between pin3 and pin1)	V_{REF}	Vi-Vo = 2.5 to 40V I_O = 10mA~I_{Max}1.5A $P_D \leqslant P_{MAX}$		1.2	1.25	1.3	V
Output Voltage Temperature Stability	$\Delta V_O / \Delta V_O$				1		%
Minimum Load Current	$I_{O(min)}$	Vi-Vo = 40V				10	mA
Maximum Load Current	$I_{O(max)}$	Vi-Vo ≤ 15V, $P_D < P_{MAX}$		1.5			A
		Vi-Vo = 40V, $P_D < P_{MAX}$, Tj=25℃			0.4		

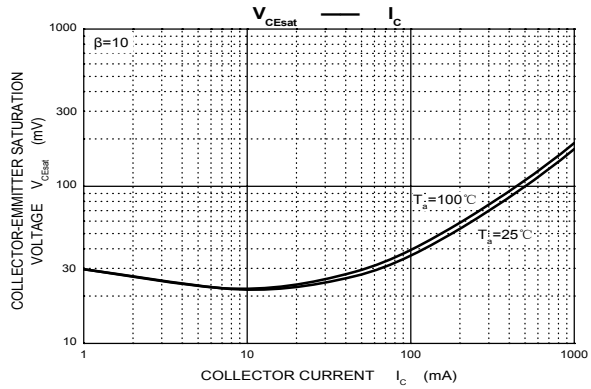
Block Diagram

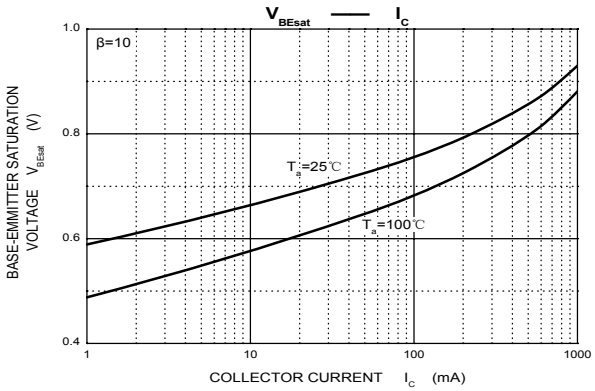


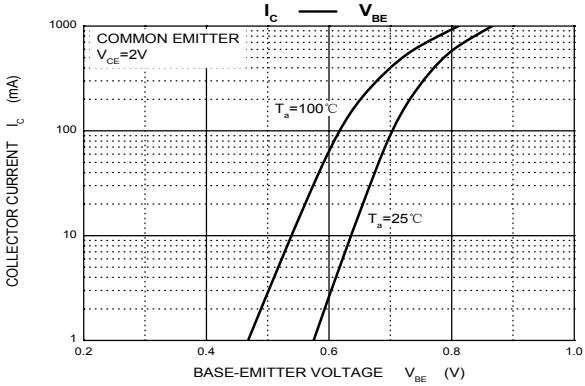
RATING AND CHARACTERISTIC CURVES

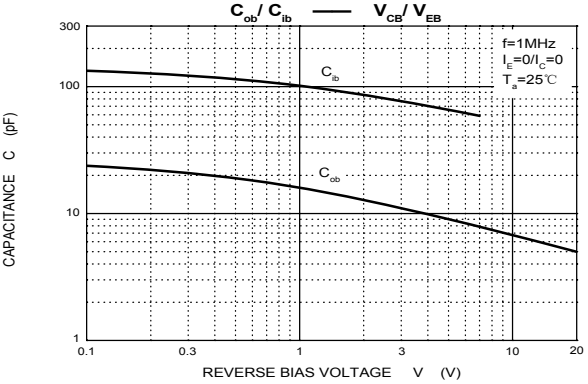


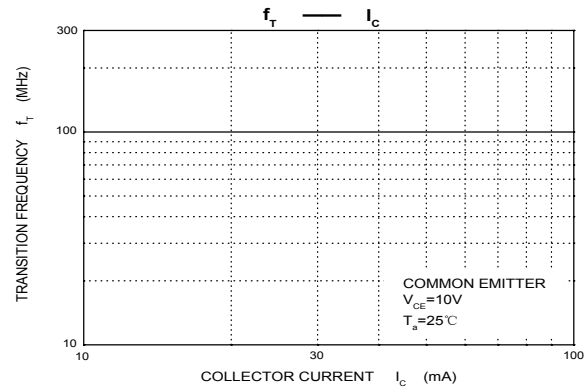


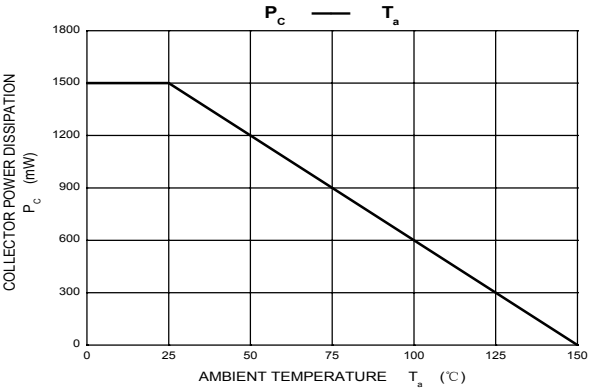








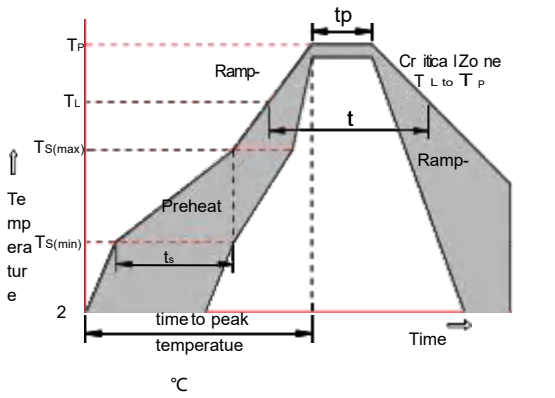




Soldering parameters

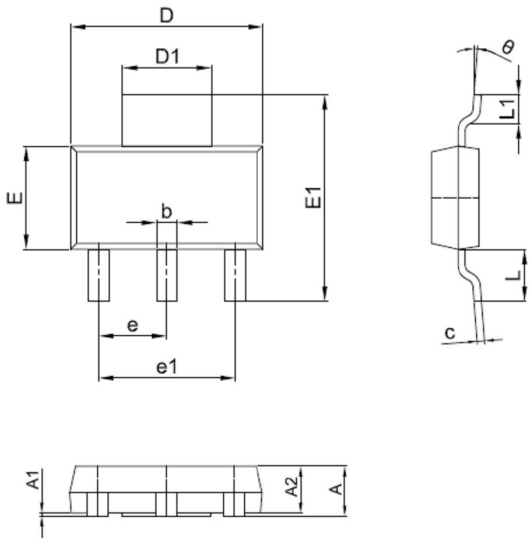
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃

FIG5: Reflow condition



Package Dimensions & Suggested Pad Layout

SOT-223



Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.50	1.80	0.059	0.071
A1	0.00	0.10	0.000	0.004
A2	1.50	1.70	0.059	0.067
b	0.65	0.75	0.026	0.030
c	0.20	0.30	0.008	0.012
D	6.40	6.60	0.252	0.260
D1	2.90	3.10	0.114	0.122
E	3.30	3.70	0.130	0.146
E1	6.85	7.15	0.270	0.281
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	1.65	1.85	0.065	0.073
L1	0.90	1.15	0.035	0.045