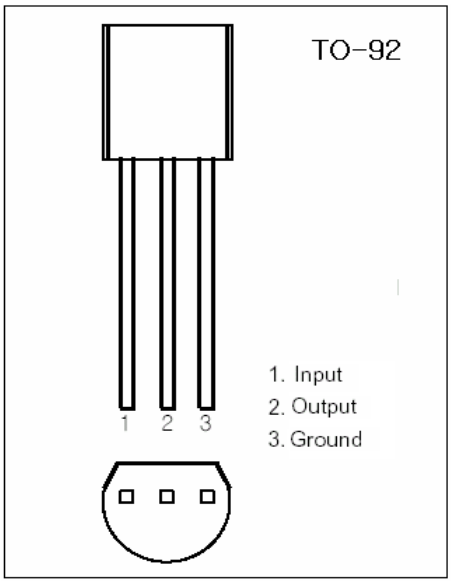
100mA, Quasi Low-Dropout Voltage Regulator

IL3480

Features:

- 3.3, 5V versions available
- 30V maximum input for operation
- 1.2V guaranteed maximum dropout over full load and temperature ranges
- 100 mA guaranteed minimum load current



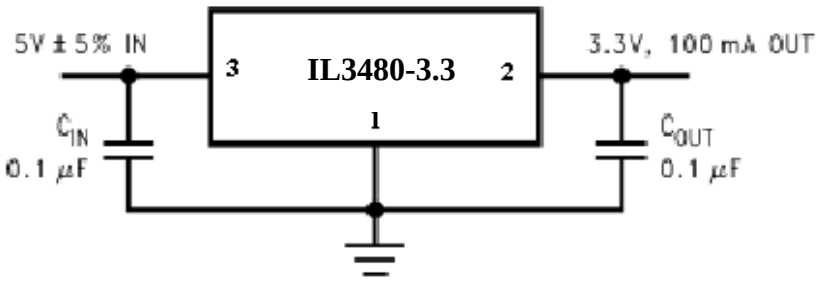
Application:

- Tiny alternative to 78LXX series and similar devices
- Low-Dropout Voltage Regulator
- Post regulator for switching DC/DC converter
- Bias supply for analog circuits

ORDERING INFORMATION

Device	Package	Shipping
IL3480LF	TO-92	Tape

Typical Application Circuit



Absolute Maximum Ratings

Input Voltage	35V
Junction Temperature	+150°C

* Stresses beyond those listed under “absolute maximum ratings” may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated under “recommended operating conditions” is not implied.
Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

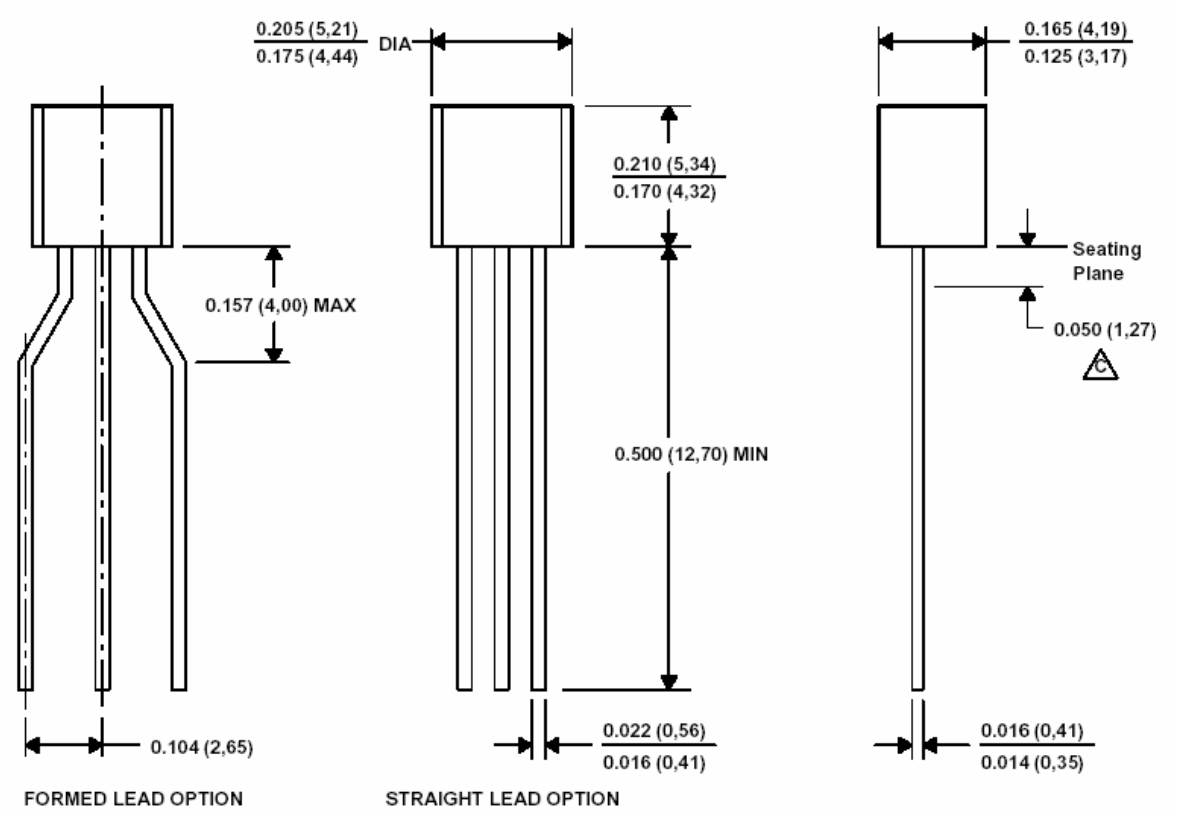
Electrical Characteristics IL3480-3.3, IL3480-5.0

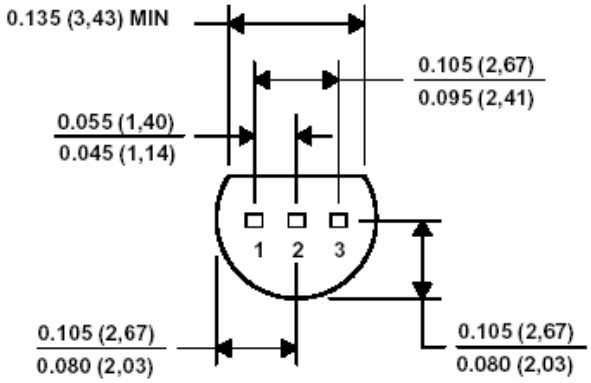
Typicals and limits appearing in normal type apply for $T_A = T_J = 25°C$. Limits appearing in boldface type apply over the entire junction temperature range for operation, -10 to +70°C. (Notes 1, 2)

Nominal Output Voltage (VNOM)			**3.3V**			**5.0V**			**Units**
Parameter	**Symbol**	**Conditions**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	
Output Voltage	Vout	Vin=Vnom+1.5V; 1mA≤Iout≤100mA	3.17 3.14	3.3	3.43 3.46	4.8 4.75	5.0	5.2 5.25	V
Line Regulation	ΔVout	Vnom+1.5V ≤Vin≤30V; Iout =1mA			25			25	mV
Load Regulation	ΔVout	Vin=Vnom+1.5V; 1mA≤Iout≤100mA			40			50	mV
Ground Pin Current	I_{GND}	Vin=30V No Load		3	4		3	4	mA
Ground Pin Current Change	ΔI_{GND}	Vnom+1.5V ≤Vin≤20V, Iout =40mA; Vin=Vnom+5V, 1mA≤Iout≤40mA			1.4 0.5			1.4 0.5	mA mA
Dropout Voltage	Vin-Vout	Iout =10mA; Iout =100mA			0.9 1.0 1.1 1.2			0.9 1.0 1.1 1.2	V

Note 1: A typical is the center of characterization data taken with $T_A = T_J = 25°C$. Typicals are not guaranteed.
Note 2: All limits are guaranteed. All electrical characteristics having room-temperature limits are tested during production with $T_A = T_J = 25°C$. All hot and cold limits are guaranteed by correlating the electrical characteristics to process and temperature variations and applying statistical process control.

• TO-92


0.205 (5,21)
0.175 (4,44)
DIA
0.165 (4,19)
0.125 (3,17)
0.210 (5,34)
0.170 (4,32)
Seating
Plane
0.157 (4,00) MAX
0.050 (1,27)
0.500 (12,70) MIN
0.104 (2,65)
0.022 (0,56)
0.016 (0,41)
0.016 (0,41)
0.014 (0,35)
FORMED LEAD OPTION
STRAIGHT LEAD OPTION


0.135 (3,43) MIN
0.105 (2,67)
0.095 (2,41)
0.055 (1,40)
0.045 (1,14)
1
2
3
0.105 (2,67)
0.080 (2,03)
0.105 (2,67)
0.080 (2,03)