CH359

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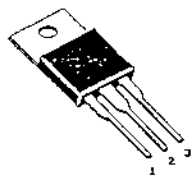
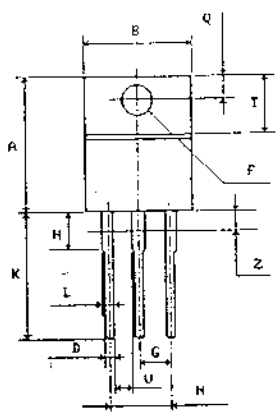
SPECIFICATION
7805C
3-TERMINAL POSITIVE VOLTAGE REGULATOR

GENERAL DESCRIPTION The 78xxC series of three terminal regulators is available with several fixed output voltages making them useful in a wide range of applications.One of these is local on card regulation, eliminating the distribution problems associated with single point regulation. The voltages available allow these regulators to be used in logic sistems,instrumentation,HiFi,and other solid state electronic equipment.Although designed primarily as fixed voltage regulators these devices can be used with external components to obtain adjustable voltages and currents.

Considerable effort was expended to make the 78xxC series of regulators easy to use and minimize the number of external components.It is not necessary to bypass the output,although this does improve transient response.Input bypassing is needed only if the regulator is located far from the filter capacitor of the power supply.

FEATURES
- *** Output Current Excess of 1.0 Ampere**
- *** No External Components Required**
- *** Internal Thermal Overload Protection**
- *** Internal Short-Circuit Current Limiting**
- *** Output Transistor Safe-Area Compensation**
- *** Output Voltage Offered in 4% Tolerance**





	MILLIMETERS	
DIM	MIN	MAX
A	14.48	15.75
B	9.66	10.28
C	4.07	4.82
D	0.64	0.88
F	3.61	3.73
G	2.42	2.66
H	2.80	3.93
J	0.46	0.55
K	12.70	14.27
L	1.15	1.39
N	4.83	5.33
Q	2.54	3.04
R	2.04	2.79
S	1.15	1.39
T	5.97	6.47
U	0.00	1.27
V	1.15	-
Z	-	2.04

Pin:1.INPUT
2.COMMON
3.OUTPUT

Case TO-220AB

ABSOLUTE MAXIMUM RATINGS

Input Voltage	35 V
Internal Power Dissipation	Internally Limited
Operating Junction Temperature Range	$0^{\circ}C$ to $+150^{\circ}C$

ELECTRICAL CHARACTERISTICS: V_{IN}=10V, I_{OUT}=500mA, T_J=25°C, C_{IN}=0.33μF, C_{OUT}=0.1μF, unless otherwise specified

CHARACTERISTICS	CONDITIONS	Min	Typ	Max	Units
Output Voltage		4.8	5.0	5.2	V
Line Regulation	7.0V ≤ V_{IN} ≤ 25V	-	-	100	mV
	8.0V ≤ V_{IN} ≤ 12V	-	-	50	mV
Load Regulation	5.0mA ≤ I_{OUT} ≤ 1.5A	-	-	100	mV
	250mA ≤ I_{OUT} ≤ 750mA	-	-	50	mV
Quiescent Current		-	-	8.0	mA
Dropout Voltage	I_{OUT}=1.0A	-	2.0	-	V
Peak Output Current			2.2	-	A

DEFINITIONS

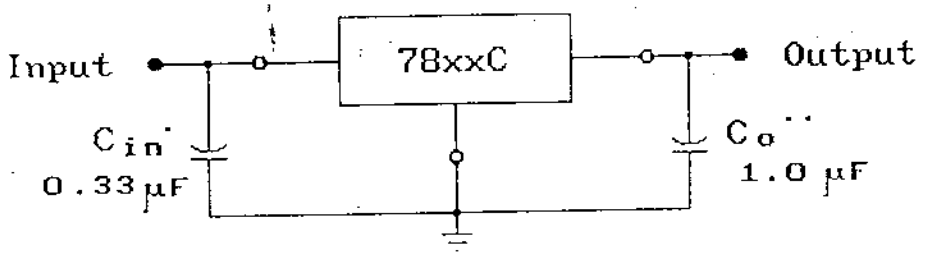
Line Regulation-The change in output voltage for a change in the input voltage.The measurement is made under conditions of low dissipation or by using pulse techniques such that the average chip temperature is not significantly affected.

Load Regulation-The change in output voltage for a change in load current at constant chip temperature.

Quiescent Current-That part of the input current that is not delivered to the load.

Maximum Power Dissipation-The maximum total device dissipation for which the regulator will operate within specifications.

STANDARD APPLICATION



A common ground is required between the input and the output voltages.The input voltage must remain typically 2.0V above the output voltage even during he low point on the input ripple voltage.
xx = these two digits of the type number indicate voltage
. = Cin is required if regulator is located an appreciable distance from power supply filter.
..= Co is not needed for stability however,it does improve transient response.
xx - indicates nominal voltage

ATTENTION! 1.All characteristics except noise voltage and ripple rejection ratio are measured using pulse techniques.
2.When measuring the following conditions are to be taken into consideration:the duration of the output current action t_w<10ms, duty cycle <5%,the power dissipated by the microcircuit should not be more than 15W if dissipator is used or not used.

CERTIFICATE OF QUALITY

The specified products quality is in compliance with this specification.

SIGN of CONTROL