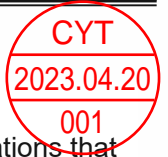


CYT78L05 Three Terminal 0.15A Positive Voltage Regulator



General Description

The CYT78L05 of fixed voltage monolithic integrated circuit voltage regulators are suitable for applications that required supply up to 150mA.

Electric Characteristics

$V_{IN}=10V, I_o=40mA, 0^{\circ}C < T_J < 125^{\circ}C, C_{IN}=0.33\mu F, C_{OUT}=0.1\mu F$, unless otherwise specified.

Characteristic	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Output Voltage	V_o	$T_J=25^{\circ}C$	4.8	5.0	5.2	V
		$7V \leq V_i \leq 20V, I_o=1mA \sim 40mA$	4.75	-	5.25	V
		$7V \leq V_i \leq V_{MAX}, I_o=1mA \sim 70mA$	4.75	-	5.25	V(note 2)
Output Voltage(note 1)	V_o	$T_J=25^{\circ}C$	4.9	5.0	5.1	V
		$7V \leq V_i \leq 20V, I_o=1mA \sim 40mA$	4.85	-	5.15	V
		$7V \leq V_i \leq V_{MAX}, I_o=1mA \sim 70mA$	4.85	-	5.15	V(note 2)
Load Regulation	ΔV_o	$T_J=25^{\circ}C, I_o=1mA \sim 130mA$	-	11	60	mV
		$T_J=25^{\circ}C, I_o=1mA \sim 40mA$	-	5.0	30	mV
Line Regulation	ΔV_o	$7V \leq V_i \leq 20V, T_J=25^{\circ}C$	-	8	150	mV
		$8V \leq V_i \leq 20V, T_J=25^{\circ}C$	-	6	100	mV
Quiescent Current	I_q	-	-	2.0	5.5	mA
Quiescent Current Change	ΔI_q	$8V \leq V_i \leq 20V$	-	-	1.5	mA
	ΔI_q	$1mA \leq I_o \leq 40mA$	-	-	0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100kHz$	-	40	-	μV
Temperature Coefficient of V_o	$\Delta V_o / \Delta T$	$I_o=5mA$	-	0.65	-	mV/ $^{\circ}C$
Ripple Rejection	RR	$8V \leq V_i \leq 20V, f=120Hz, T_J=25^{\circ}C$	40	49	-	dB
Dropout Voltage	V_D	$T_J=25^{\circ}C$	-	1.7	-	V

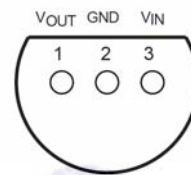
Note 1: Output voltage of 78LXX.
Note 2: Power dissipation < 0.70W.

Absolute Maximum Ratings

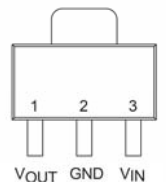
Operating temperature range applies unless otherwise specified.

Characteristics	Symbol	Value	Unit
Input voltage	V_i	30	V
High power dissipation	P_D	700	mW
Operating Junction Temperature Range	T_{OPR}	-20~120	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55~150	$^{\circ}C$

Pin Diagram(Top View)



TO92



SOT89

Typical Application

