

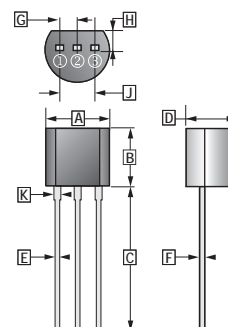
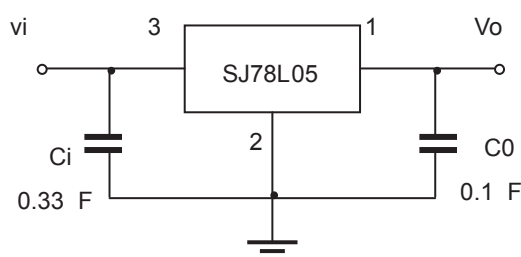
**RoHS Compliant Product**  
A suffix of "-C" specifies halogen and lead-free

## FEATURES

- Maximum output current  $I_O$ : 0.1A
- Output voltage  $V_O$ : 5V
- Continuous total dissipation  $P_D$ : 0.625W ( $T_A=25^\circ\text{C}$ )

## TO-92

## TYPICAL APPLICATION



## MARKING

CJ78L05

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.70	F	0.36	0.51
B	4.30	4.70	G	1.27 TYP.	
C	12.70	-	H	1.10	-
D	3.30	3.81	J	2.42	2.66
E	0.36	0.56	K	0.36	0.76

## PINNING

1. Out
2. Ground
3. IN

## ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

PARAMETER	SYMBOL	VALUE	UNITS
Input Voltage	$V_I$	30	V
Operating Junction and Storage Temperature Range	$T_{OPR}, T_{STG}$	0~125, -55~150	$^\circ\text{C}$

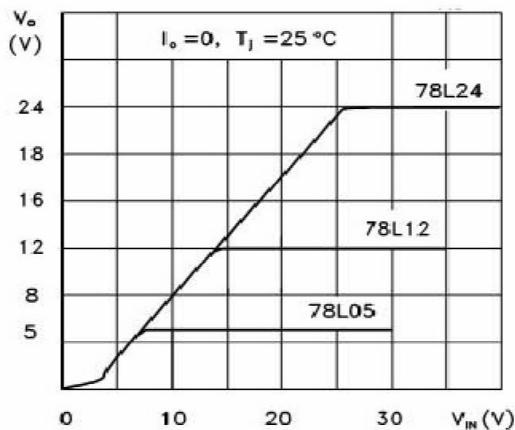
## ELECTRICAL CHARACTERISTICS

(At specified virtual junction temperature,  $V_I=10\text{V}$ ,  $I_O=40\text{mA}$ ,  $C_I=0.33\mu\text{F}$ ,  $C_O=0.1\mu\text{F}$  unless otherwise specified)

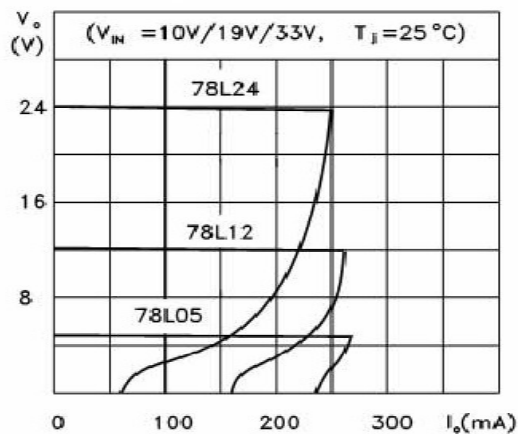
PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Output Voltage	$V_O$	4.8	5.0	5.2	V	$T_J=25^\circ\text{C}$ ,
		4.75	5.0	5.25	V	$7\text{V} \leq V_I \leq 20\text{V}$ , $I_O=1\text{mA} \sim 40\text{mA}$ , $T_J=0 \sim 125^\circ\text{C}$
		4.75	5.0	5.25	V	$I_O=1\text{mA} \sim 70\text{mA}$ , $T_J=0 \sim 125^\circ\text{C}$
Load Regulation	$\Delta V_O$	-	15	60	mV	$I_O=1\text{mA} \sim 100\text{mA}$ , $T_J=25^\circ\text{C}$
		-	8	30	mV	$I_O=1\text{mA} \sim 40\text{mA}$ , $T_J=25^\circ\text{C}$
Line Regulation	$\Delta V_O$	-	32	150	mV	$7\text{V} \leq V_I \leq 20\text{V}$
		-	26	100	mV	$8\text{V} \leq V_I \leq 20\text{V}$ , $T_J=25^\circ\text{C}$
Quiescent Current	$I_Q$	-	3.8	6	mA	$T_J=25^\circ\text{C}$
Quiescent Current Change	$\Delta I_Q$	-	-	1.5	mA	$8\text{V} \leq V_I \leq 20\text{V}$ , $T_J=0 \sim 125^\circ\text{C}$
	$\Delta I_Q$	-	-	0.1	mA	$1\text{mA} \leq V_I \leq 40\text{mA}$ , $T_J=0 \sim 125^\circ\text{C}$
Output Noise Voltage	$V_N$	-	42	-	$\mu\text{V}$	$10\text{Hz} \leq f \leq 100\text{KHz}$ , $T_J=25^\circ\text{C}$
Ripple Rejection	RR	41	49	-	dB	$8\text{V} \leq V_I \leq 20\text{V}$ , $f=120\text{Hz}$ , $T_J=0 \sim 125^\circ\text{C}$
Drop Out Voltage	$V_D$	-	1.7	-	C	$T_J=25^\circ\text{C}$

**TYPICAL APPLICATION**

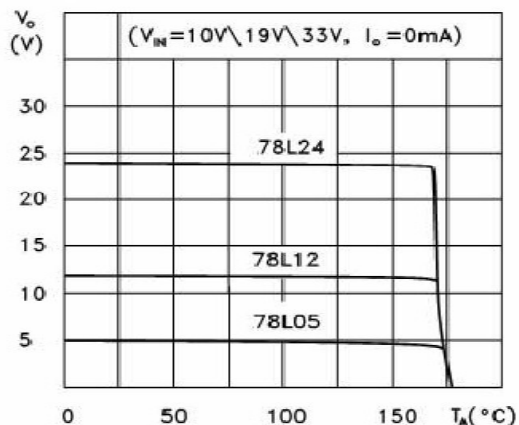
**Output Characteristics**



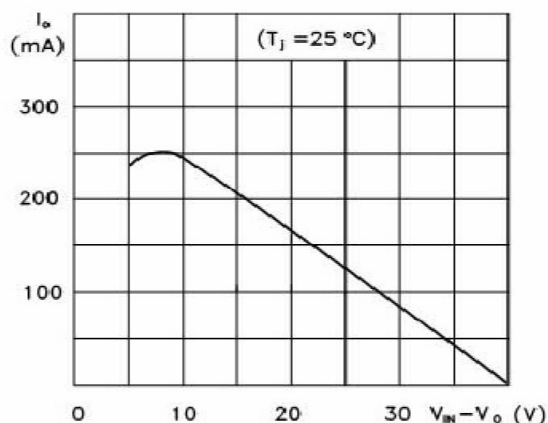
**Load Characteristics**



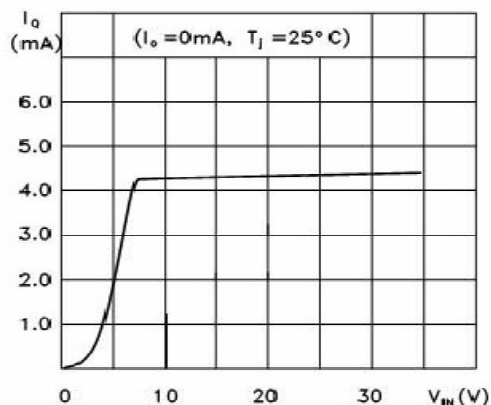
**Thermal Shutdown**



**Short Circuit Output Current**



**Quiescent Current vs Input Voltage**



**PD-TA**

