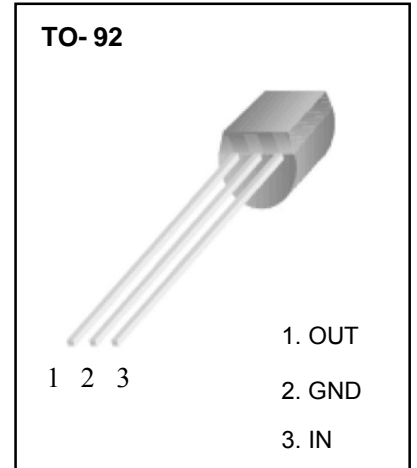


TO-92 Encapsulate Three-terminal Voltage Regulator

Features

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



Limiting Values (Absolute Maximum Rating)

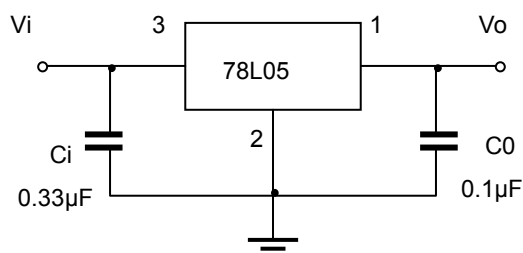
Parameter	Symbol	Value	Unit
Input Voltage	V_i	30	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	160	$^\circ\text{C}/W$
Operating Junction Temperature Range	T_{OPR}	-40~+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ\text{C}$

Electrical Characteristics (T=25 $^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output voltage	V_o	25 $^\circ\text{C}$ 7V $\leq V_i \leq 20V$, $I_o = 1\text{mA} \sim 40\text{mA}$	4%	4.80	5.0	5.20	V
			3%	4.85	5.0	5.15	V
			2%	4.90	5.0	5.10	V
Output voltage	V_o	0-125 $^\circ\text{C}$ $I_o = 1\text{mA} \sim 40\text{mA}$	4.75	5.0	5.25	V	
		$I_o = 1\text{mA} \sim 70\text{mA}$	4.75	5.0	5.25	V	
Load Regulation	ΔV_o	25 $^\circ\text{C}$ $I_o = 1\text{mA} \sim 100\text{mA}$		15	60	mV	
		25 $^\circ\text{C}$ $I_o = 1\text{mA} \sim 40\text{mA}$		8	30	mV	
Line regulation	ΔV_o	7V $\leq V_i \leq 20V$		32	150	mV	
		25 $^\circ\text{C}$ 8V $\leq V_i \leq 20V$		26	100	mV	
Quiescent Current	I_q	25 $^\circ\text{C}$		3.8	6	mA	
Quiescent Current Change	ΔI_q	0-125 $^\circ\text{C}$ 8V $\leq V_i \leq 20V$			1.5	mA	
		0-125 $^\circ\text{C}$ 1mA $\leq I_o \leq 40\text{mA}$			0.1	mA	
Output Noise Voltage	V_N	25 $^\circ\text{C}$ 10Hz $\leq f \leq 100\text{KHz}$		42		$\mu\text{V}/V_o$	
Ripple Rejection	RR	0-125 $^\circ\text{C}$ 8V $\leq V_i \leq 20V, f = 120\text{Hz}$	41	49		dB	
Dropout Voltage	V_d	25 $^\circ\text{C}$		1.7		V	

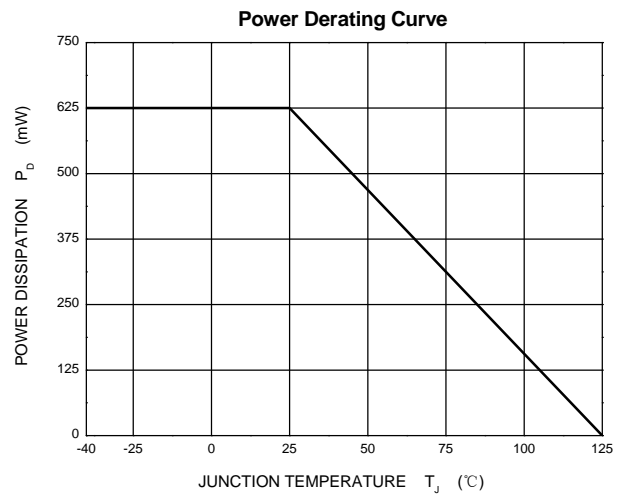
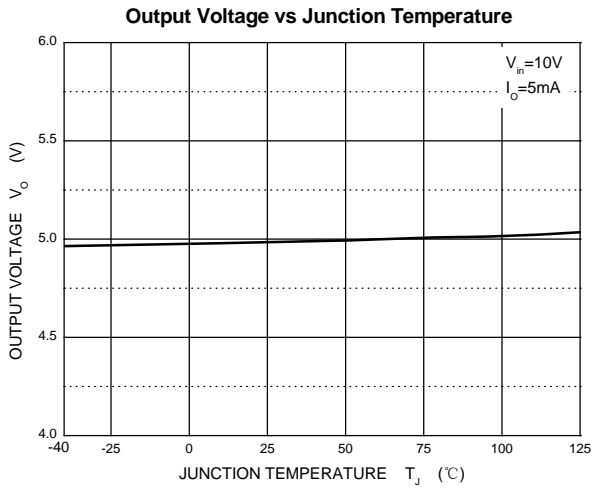
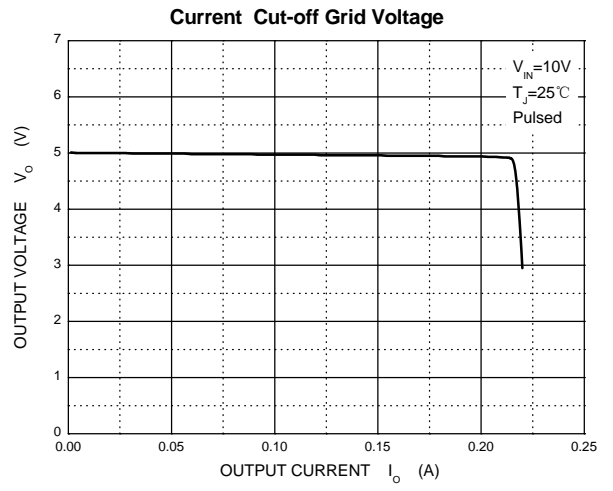
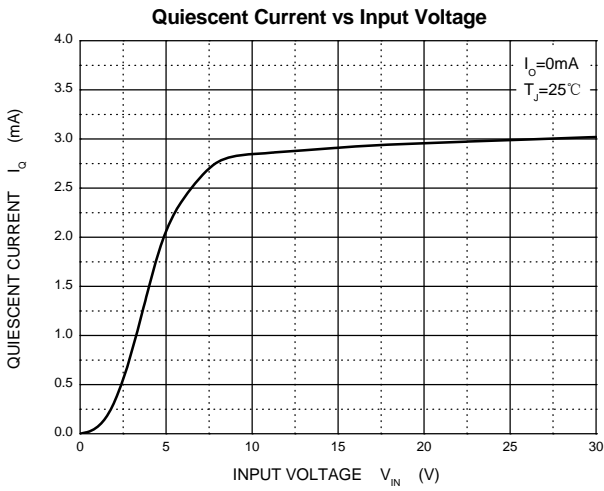
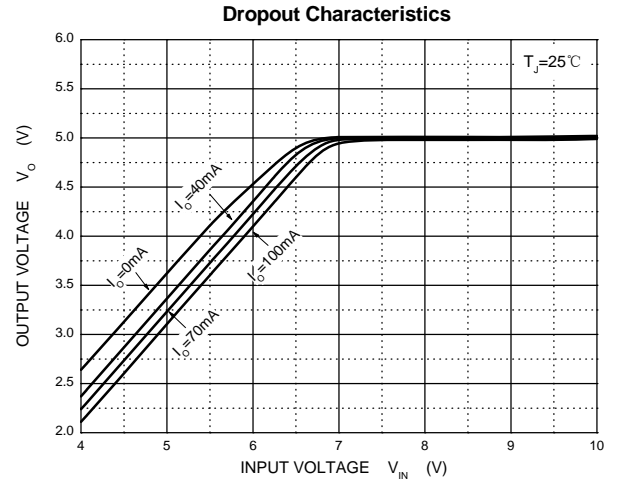
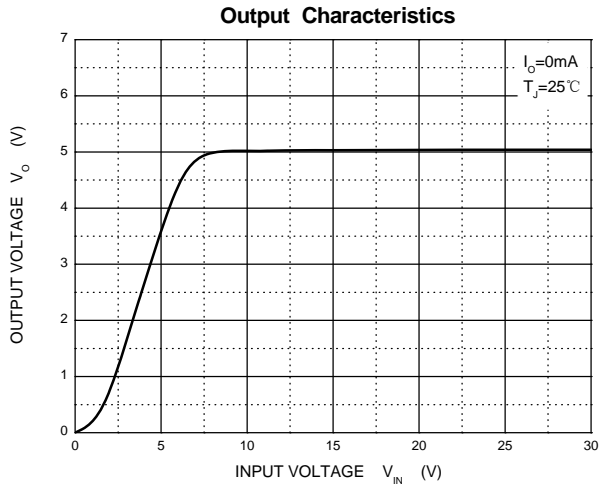
* Pulse test.

TYPICAL APPLICATION

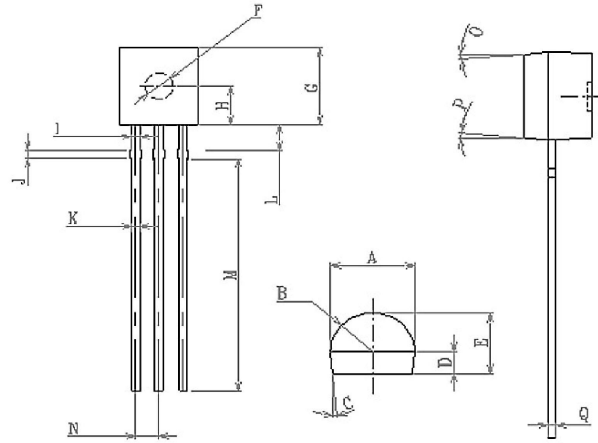


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Typical Characteristics



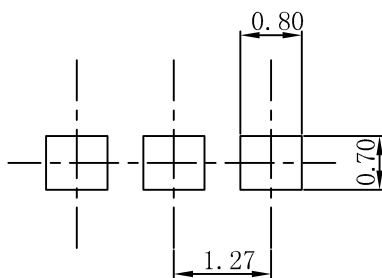
TO-92 Package Outline Dimensions



SYMBOL	MIN	MAX	SYMBOL	MIN	MAX
A	4.1	4.3	K	0.36	0.56
B	R2.0	R2.2	L	1.35	1.45
C	4.1		M	12.00	12.5
D	1.1	1.2	N	1.24	1.3
E	3.13	3.33	O	5°	
F	Φ1.48	Φ1.52	P	5°	
G	4.4	4.6	Q	0.37	0.39
H	2.2	2.3			
I	0.36	0.56			
J	0.5	0.6			

单位: mm

TO-92 Suggested Pad Layout



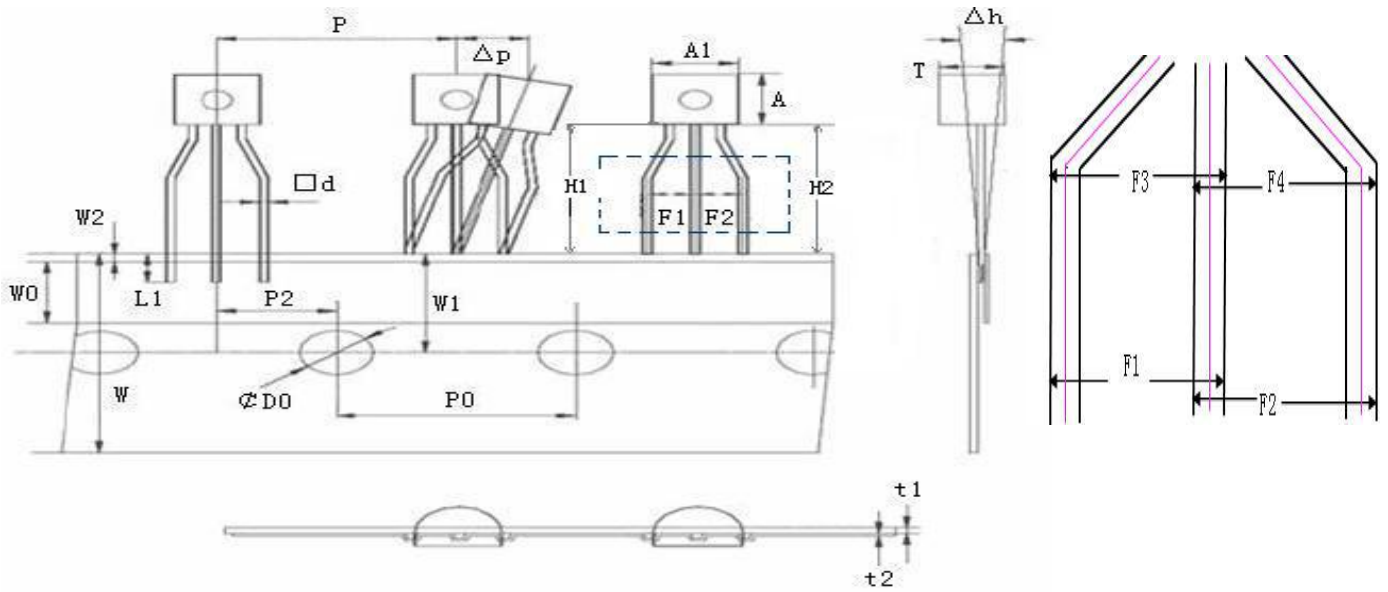
Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

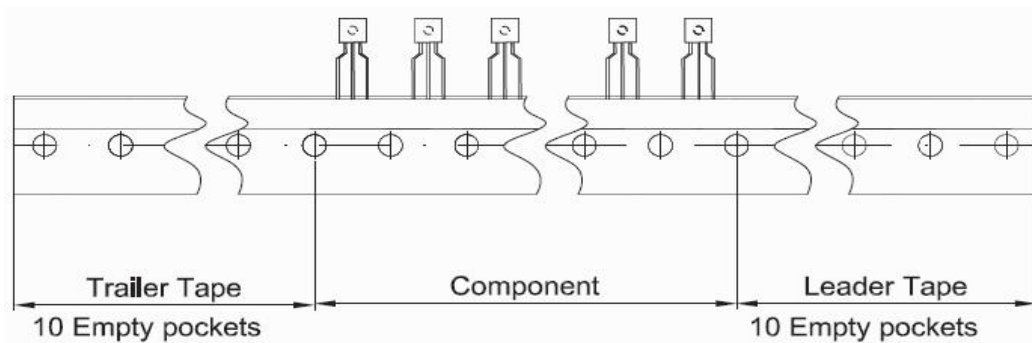
NOTICE

JSHD reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSHD does not assume any liability arising out of the application or use of any product described herein.

TO-92 Tape and Reel



Symbol	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A1	4.1	4.2	4.3	0.171	0.176	0.180
A	4.4	4.5	4.6	0.184	0.188	0.192
T	3.13	3.23	3.33	0.131	0.134	0.139
□d	0.36	0.45	0.56	0.015	0.018	0.022
L1	2.5	—	—	0.098	—	—
P	12.4	—	13	0.488	—	0.512
P0	12.5	12.7	12.9	0.492	0.5	0.508
P2	6.05	6.35	6.65	0.238	0.25	0.262
F1,F2	2.75	3.00	3.25			
F3,F4	2.75	3.00	3.25			
F1-F2	—	—	0.4			



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000PCS	343×158×42	20000PCS	470×358×180