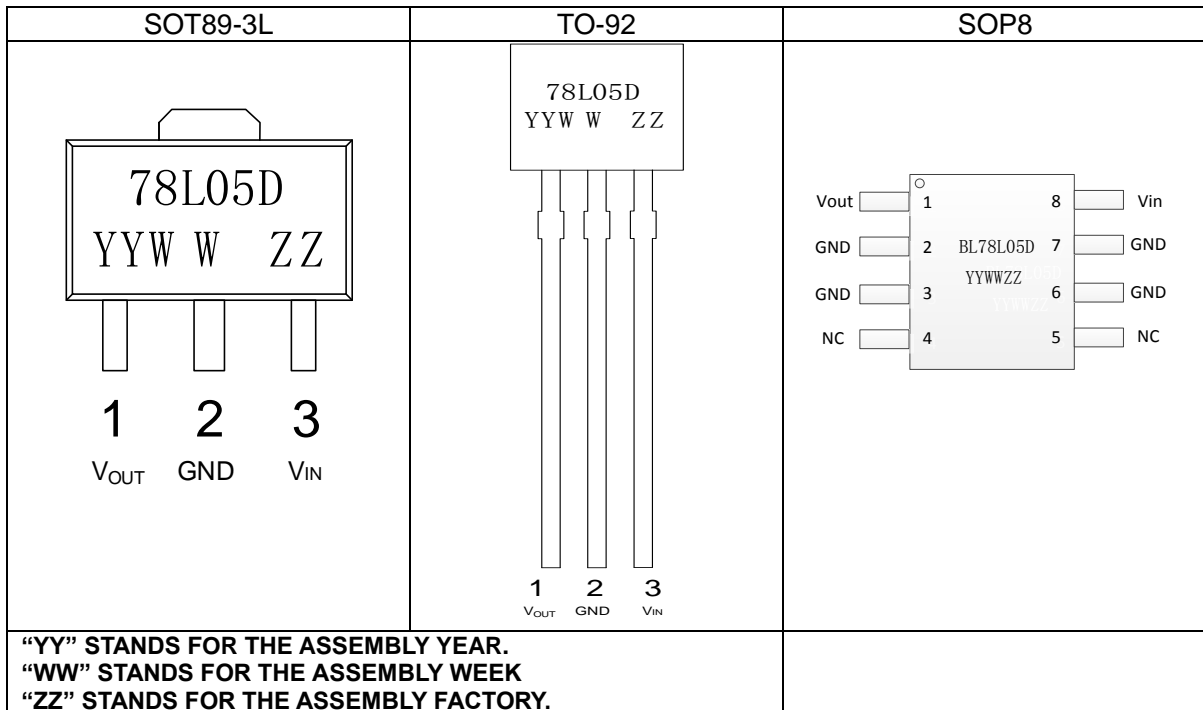


FEATURES

- Maximum Output Current:0.1A
- Output Voltage:5V
- Thermal Overload Protection
- 2% Output Voltage Accuracy

PIN CONNECTION



Absolute Maximum Ratings (Ta=25°C)

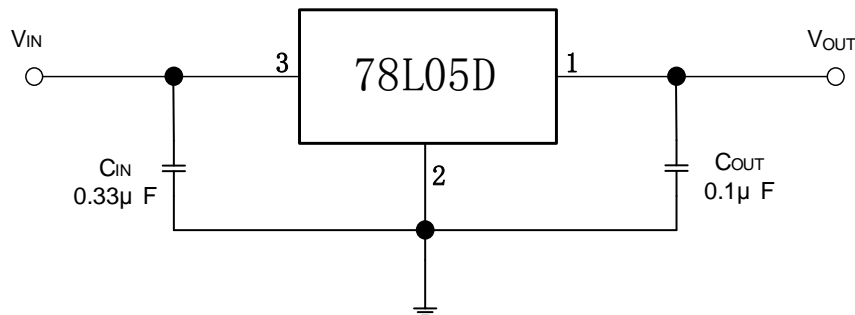
Characteristics	Symbol	Value	Unit
Input Voltage	V _i	42	V
Operating Junction Temperature Range	T _j	-40~+125	°C
Power Dissipation	P _d	750	mW
Operating Temperature Range	T _{opr}	-40~+85	°C
Storage Temperature Range	T _{stg}	-40~+150	°C

ELECTRICAL CHARACTERISTICS

(unless other wise noted, $V_i=10V, I_o=40mA, -30 < T_j < 85^\circ C, C_1=0.33\mu F, C_o=0.1\mu F$) (Note1)

Characteristics	Test Conditions	Symbol	Min	Typ	Max	Unit
Output Voltage	$T_j=25^\circ C$	V_o	4.9	5	5.1	V
	$7V \leq V_i \leq 20V; I_o=1mA \sim 40mA$		4.8		5.2	V
	$7V \leq V_i \leq V_{max}; I_o=1mA \sim 70mA$		4.8		5.2	V
Load Regulation	$T_j=25^\circ C; I_o=1mA \sim 100mA$	ΔV_o		11	60	mV
	$T_j=25^\circ C; I_o=1mA \sim 40mA$			5	6	mV
Line Regulation	$T_j=25^\circ C; 7V \leq V_i \leq 20V$	ΔV_o		8	150	mV
	$T_j=25^\circ C; 8V \leq V_i \leq 20V$			6	100	mV
Quiescent Current		I_q		3	5.5	mA
Quiescent Current Change	$8V \leq V_i \leq 20V$	ΔI_q			1.5	mA
	$1mA \leq I_o \leq 40mA$				0.2	mA
Output Noise Voltage	$10Hz \leq f \leq 100kHz$	V_N		63		μV
Temperature Coefficient	$I_o=5mA$	$\Delta V_o/\Delta T$		0.65		$mV/^\circ C$
Ripple Rejection	$10V \leq V_i \leq 20V; f=120Hz; T_j=25^\circ C$	RR	41	60		dB
Dropout Voltage	$T_j=25^\circ C$	V_d		1.7		V

APPLICATION CIRCUIT



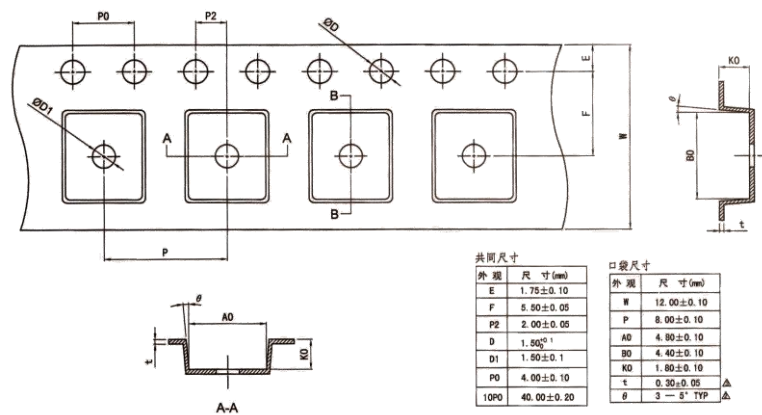
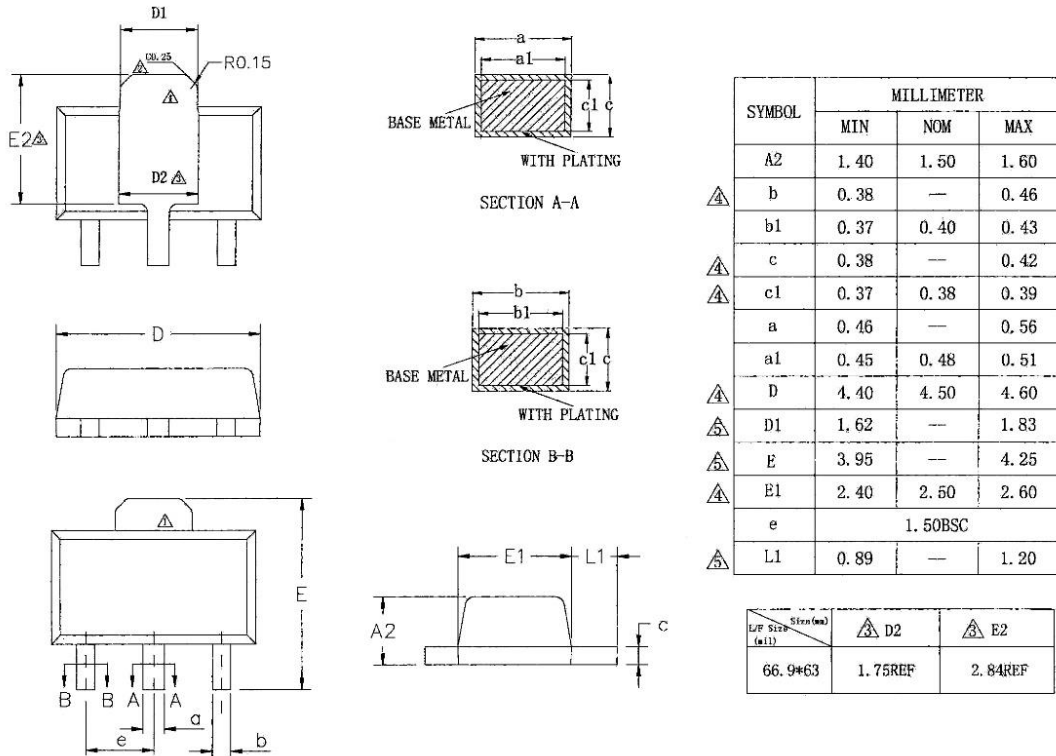
*Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.

ORDER INFORMATION

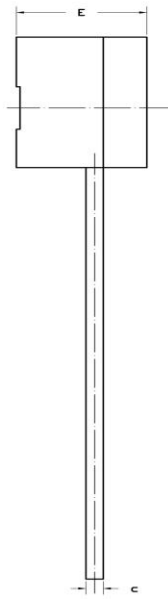
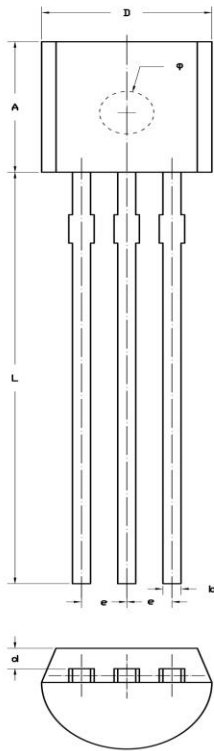
1	BL78L05D	SOT89-3L	Packaged by Tianshui Huatian Technology
2	BL78L05D-P	SOT89-3L	Packaged by Dongguan Pingjingsemi Technology
3	BL78L05D-TO92	TO-92	Packaged by Wuxi Hongguang Electronic Limited
4	BL78L05D-SOP8	SOP8	Packaged by Wuxi Hongguang Electronic Limited

OUTLINEDRAWING & Tray information

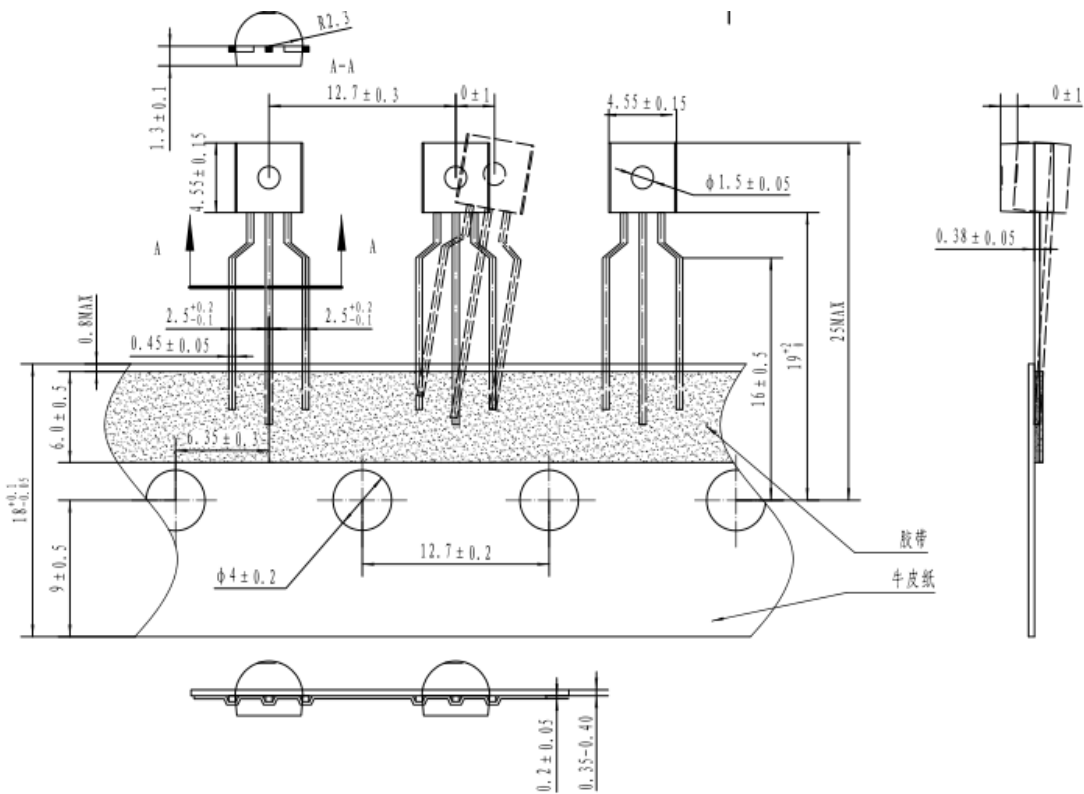
1.BL78L05D (SOT89-3L)



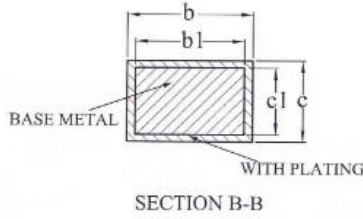
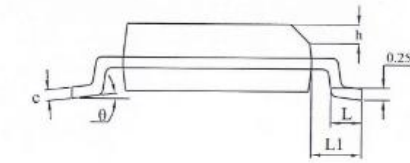
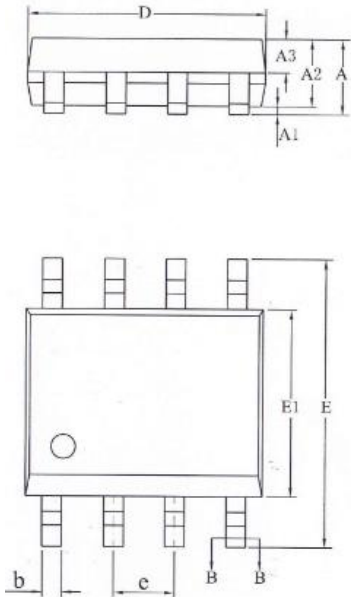
2. BL78L05D (TO-92)



尺寸符号	数值 (单位: mm)	
	最小值	最大值
A	4.35	4.70
b	0.40	0.55
c	0.36	0.50
D	4.40	4.70
d	0.80	1.20
E	3.40	3.70
e	1.20	1.30
L	13.5	14.5
Φ	1.45	1.60



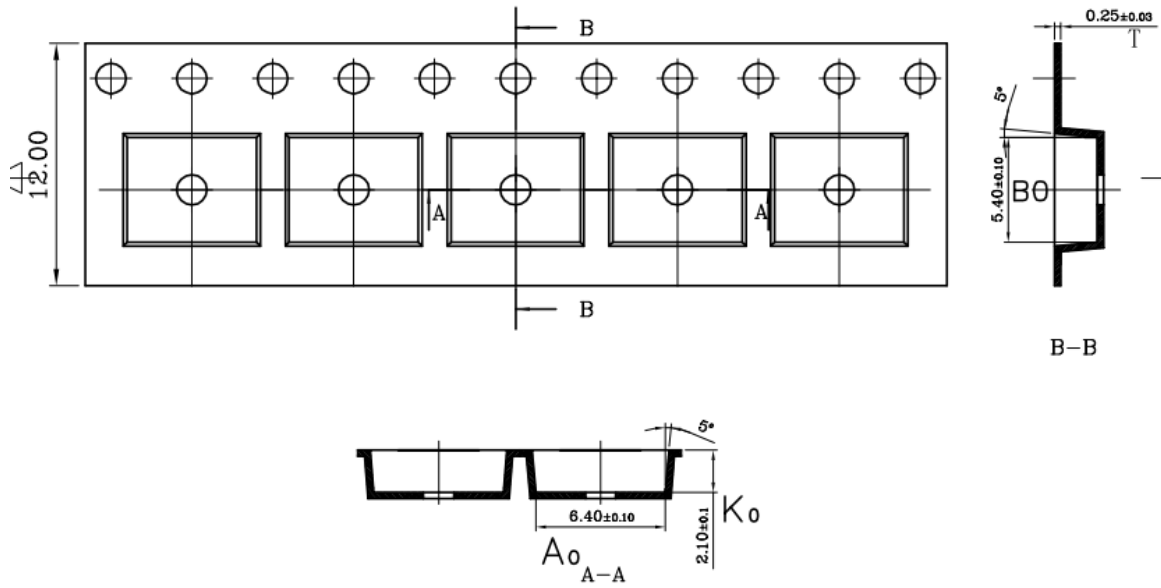
3.BL78L05D (SOP8)



- △
- △
- △
- △
- △
- △

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	—	—	1.75
A1	0.10	—	0.225
A2	1.30	1.40	1.50
A3	0.60	0.65	0.70
b	0.39	—	0.47
b1	0.38	0.41	0.44
c	0.20	—	0.24
c1	0.19	0.20	0.21
D	4.80	4.90	5.00
E	5.80	6.00	6.20
E1	3.80	3.90	4.00
e	1.27BSC		
h	0.25	—	0.50
L	0.50	—	0.80
L1	1.05REF		
ø	0	—	8°

產品尺寸規格					(UNIT:mm)				
規格	W	P1	E	F	D0	D1	P0	P2	10P0
尺寸	12.0 ^{+0.30} _{-0.10}	8.0±0.1	1.75±0.1	5.5±0.05	1.5 ^{+0.10} ₋₀	1.5 ^{+0.25} ₋₀	4±0.1	2±0.05	40±0.2
規格	A0	A1	B0	B1	K0	K1	T		
尺寸	6.40±0.10		5.40±0.10		2.10±0.10		0.25±0.03		



Storage conditions and packaging

- Warranty period: Two years
- Packing method: Reel
- Minimum packaging
 - SOT89-3L: 1000
 - SOP8: 2500