



**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Input voltage	$V_I$	36	V
Output current( $V_I=8V$ )	$I_O$	100	mA
Operating virtual Junction temperature	$T_J$	0~125	
Power Dissipation	$P_D$	500	mW
Storage temperature range	$T_{stg}$	-65~150	
Thermal resistance junction-ambient	$R_{\theta JA}$	200	$^{\circ}C/W$

**/ Electrical Characteristics(Ta=25  $V_I=10V, I_O=40mA$  unless otherwise specified)**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	$V_O$	$I_O=40mA$ $T_J=25^{\circ}C$	4.80	5.0	5.2	V
		$I_O=1mA$ to 40mA $V_I=7V$ to 20V	4.75	5.0	5.25	V
		$I_O=1mA$ to 70mA $V_I=10V$	4.75	5.0	5.25	V
Input regulation	$\Delta V_O$	$V_I=7V$ to 20V $T_J=25^{\circ}C$		32	150	mV
		$V_I=8V$ to 20V $T_J=25^{\circ}C$		26	100	mV
Output regulation	$\Delta V_O$	$I_O=1mA$ to 100mA $T_J=25^{\circ}C$		15	60	mV
		$I_O=1mA$ to 40 mA $T_J=25^{\circ}C$		8	30	mV
Ripple rejection	RR	$V_I=8V$ to 18V $f=120Hz$ $T_J=25^{\circ}C$	41	49		dB
Output noise voltage	$V_N$	$f=10Hz\sim 100KHz$ $T_J=25^{\circ}C$		42		$\mu V$
Dropout voltage	$V_D$	$T_J=25^{\circ}C$		2		V
Bias current	$I_Q$	$T_J=25^{\circ}C$		1	6	mA
		$T_J=125^{\circ}C$			5.5	mA
Bias current change	$\Delta I_Q$	$V_I=8V$ to 20V			1.5	mA
		$I_O=1mA$ to 40mA			0.1	mA

/ Electrical Characteristic Curve

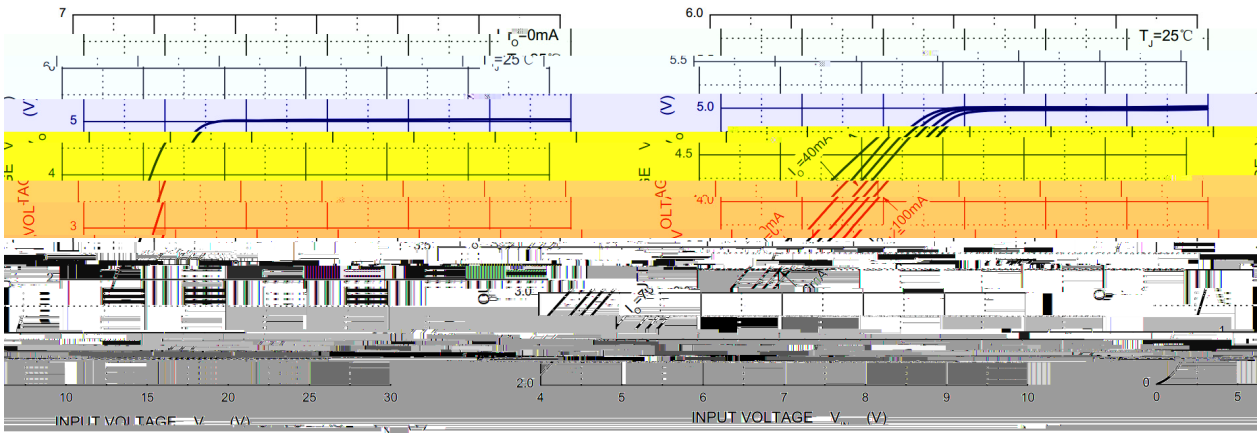


Figure 1. Output Characteristics

Figure 2. Dropout Characteristics

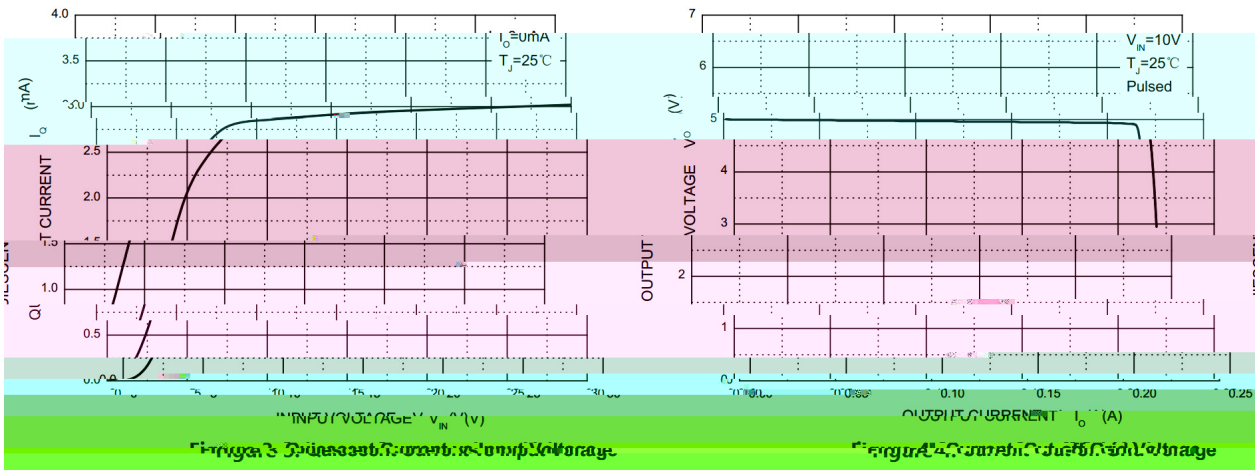


Figure 3. Load Regulation Characteristics

Figure 4. Load Regulation Characteristics

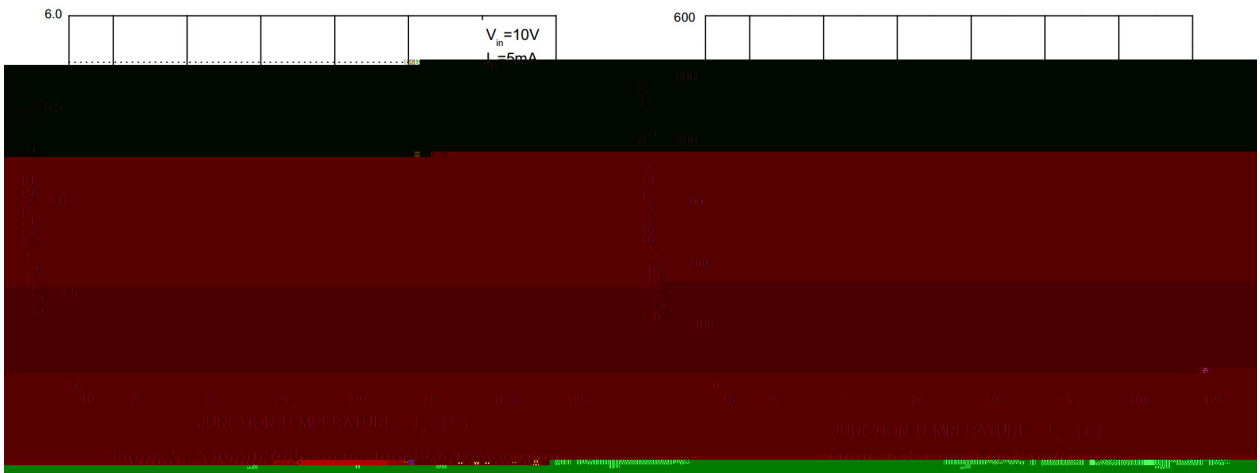


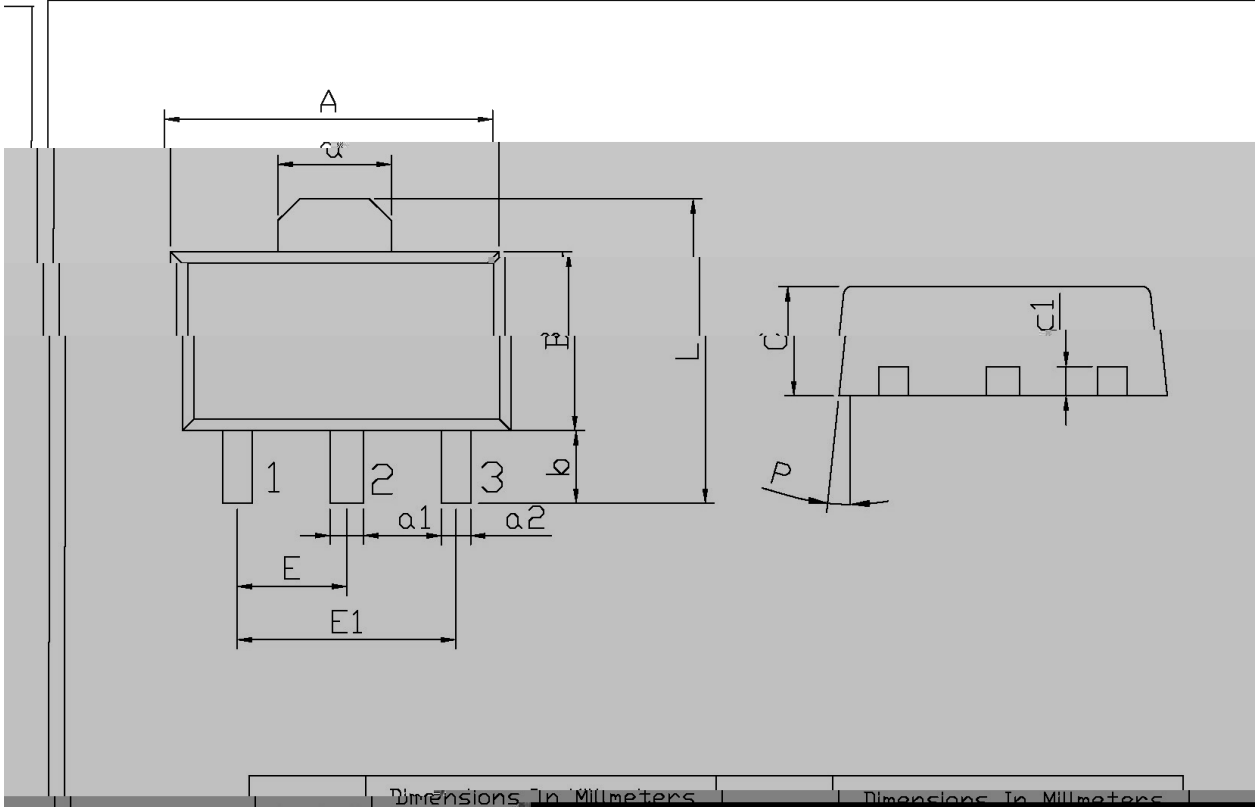
Figure 5. Load Regulation Characteristics

Figure 6. Load Regulation Characteristics

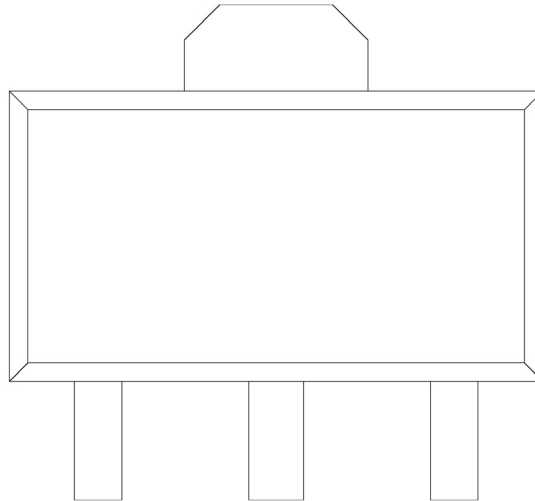
/ Package Dimensions

78L05AT-89

单位: mm

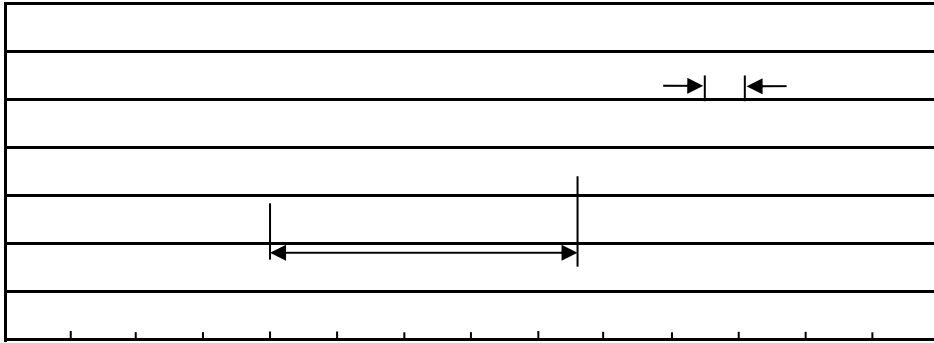


**/ Marking Instructions**



H  
L05

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- |   |     |     |    |          |   |
|---|-----|-----|----|----------|---|
| 1 | 150 | 180 | 60 | 90sec;   | 1.Preheating:150~180 , Time:60~90sec.   |
| 2 | 245 | 5   | 5  | 0.5sec;  | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 |     |     | 2  | 10 /sec. | 3. Cooling Speed: 2~10 /sec.            |

/ Resistance to Soldering Heat Test Conditions

260 5                      10 1 sec.                      Temp.:260±5                      Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
SOT-89	1,000	7	7,000	6	42,000	7" x12	180x120x180	390x385x205

/ Notices