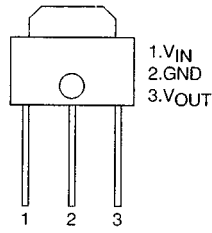


L88M00T Series

Pin Assignment



A10242

Top view

Operating Conditions at $T_a = 25\text{ }^{\circ}\text{C}$

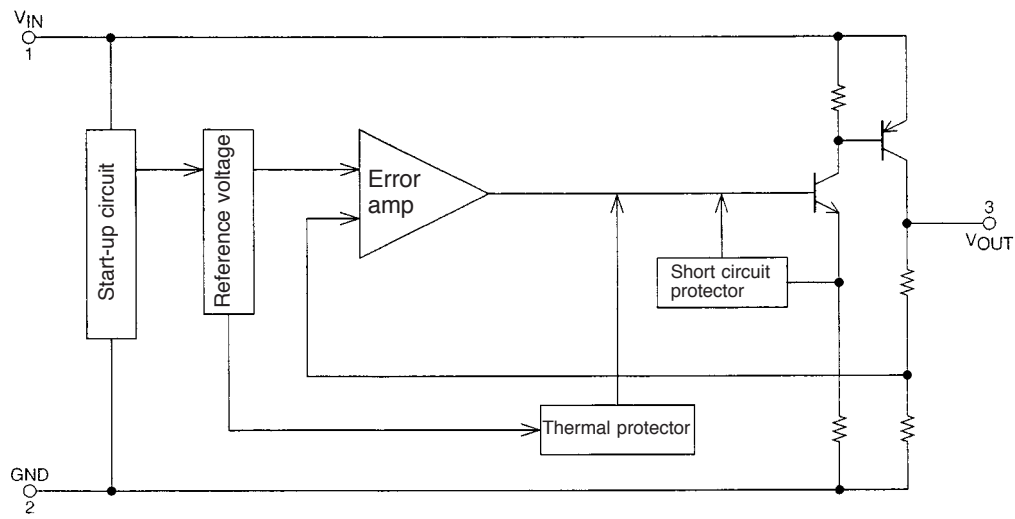
Parameter	Symbol	Conditions	Ratings	Unit
Input voltage	V_{IN}		5.8 to 17	V
Output current	I_{OUT}		0 to 500	mA

Operating Characteristics at $T_j = 25\text{ }^{\circ}\text{C}$, $V_{IN} = 8\text{ V}$, $I_O = 500\text{ mA}$, $C_{OUT} = 100\text{ }\mu\text{F}$, $C_{IN} = 1\text{ }\mu\text{F}$, see specified Test Circuit.

Parameter	Symbol	Conditions	min	typ	max	Unit
Output voltage	V_{OUT}		4.85	5.0	5.15	V
Dropout voltage	V_{DROP1}			0.4	0.6	V
	V_{DROP2}	$I_O = 150\text{ mA}$		0.2	0.3	V
Line regulation	ΔV_{OLN}	5.8 V % V_{IN} % 17 V		10	50	mV
Load regulation	ΔV_{OLD}	5 mA % I_{OUT} % 500 mA		30	100	mV
Peak output current	I_{OP}		600	900		mA
Output short-circuit current	I_{OSC}			100	300	mA
Quiescent current	I_{Q1}	$I_{OUT} = 0$		2.0	5.0	mA
	I_{Q2}			24	50	mA
Output noise voltage	V_{NO}	10 Hz % f % 100 kHz		40		μVrms
Temperature coefficient of output voltage	$\Delta V_{OUT}/\Delta T_j$	$T_j = 25\text{ to }125\text{ }^{\circ}\text{C}$		± 0.5		mV/ $^{\circ}\text{C}$
Ripple rejection	Rrej	f = 120 Hz, 6 V % V_{IN} % 17 V		65		dB

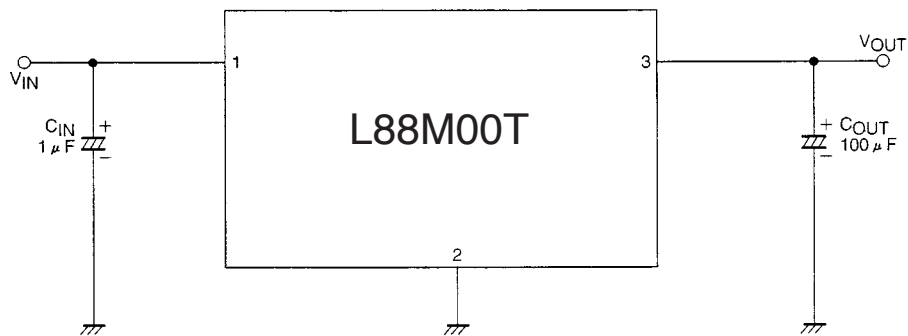
L88M00T Series

Equivalent Circuit Block Diagram (Common to L88M00T Series)



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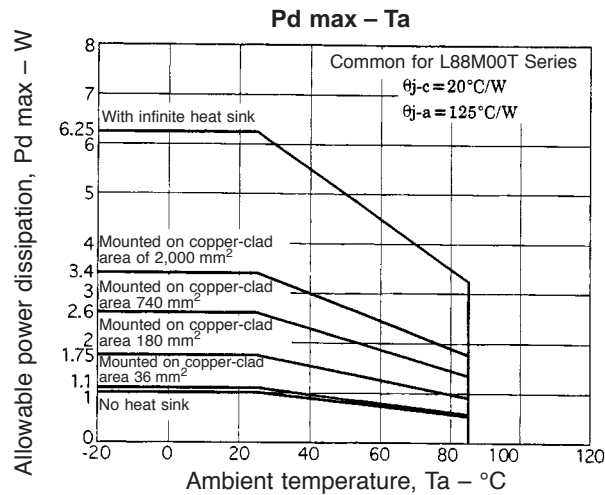
Test Circuit (Common to L88M00T Series)



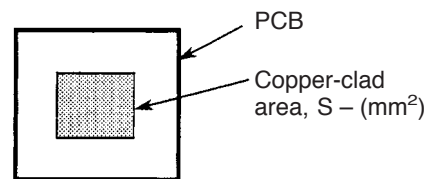
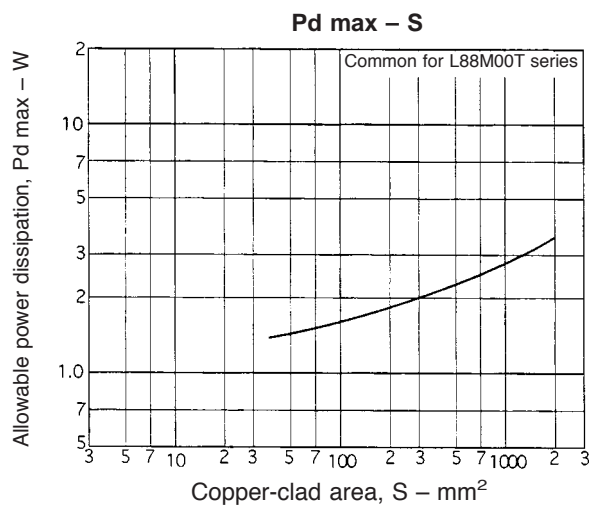
A10244

- Notes:
1. To ensure operational stability, C_{IN} and C_{OUT} should be placed as close to the IC as possible.
 2. Because the output capacitor C_{OUT} is set at over $100 \mu F$ to prevent oscillation at low temperatures, a capacitor that exhibits little change in capacity with temperature variations should be used (such as a tantalum capacitor).
 3. When V_{IN} is minus (-) and GND is plus (+) (reversed connection), excessive current flow will occur.

L88M00T Series

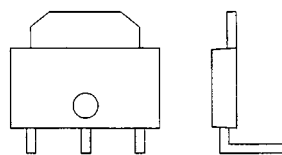


- 1) The allowable power dissipation is 1.0 W ($T_a = 25^{\circ}\text{C}$) with no fin attached, but when mounted on a hybrid IC board or printed circuit board, high allowable power dissipation is achieved, despite the compact package.
 The graph below depicts the relationship between the copper-clad area and allowable power dissipation when mounted on a glass epoxy board ($50 \times 50 \times 0.8 \text{ mm}^3$) with a copper thickness of $18 \mu\text{m}$.



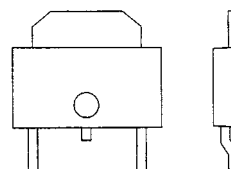
- 2) Pd is the value for when the solder on the surface of the IC heat sink has melted completely and the surface mount is horizontal.
- 3) Please be advised that the flow solder application system (full-heat method) cannot be recommended.

Lead Formings



LR forming

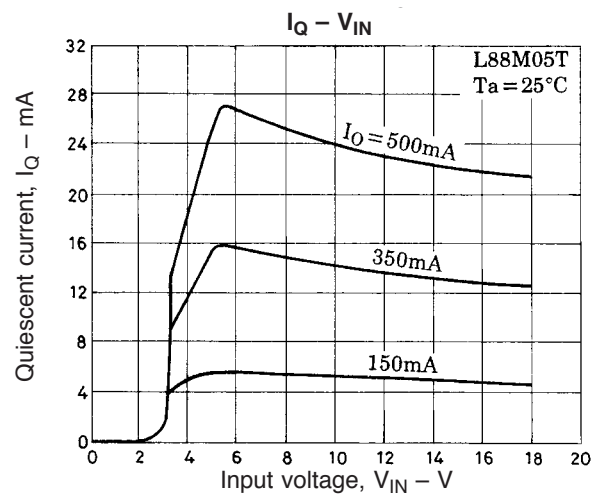
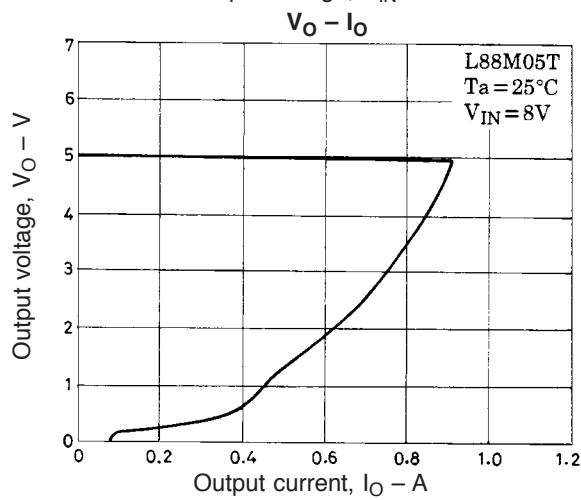
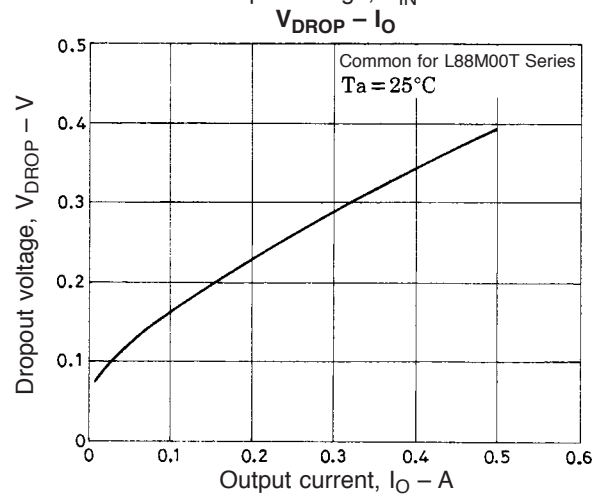
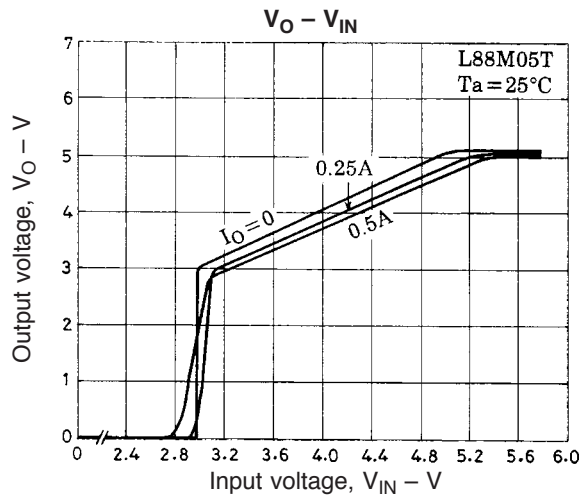
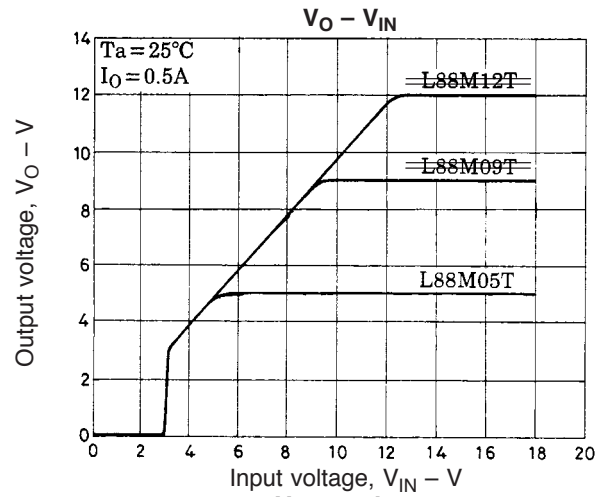
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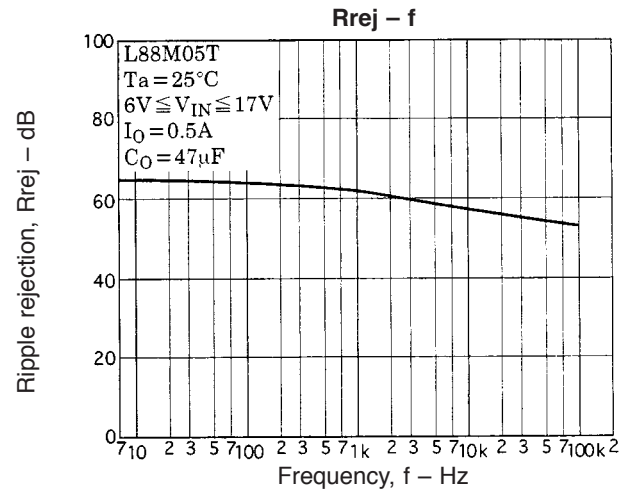
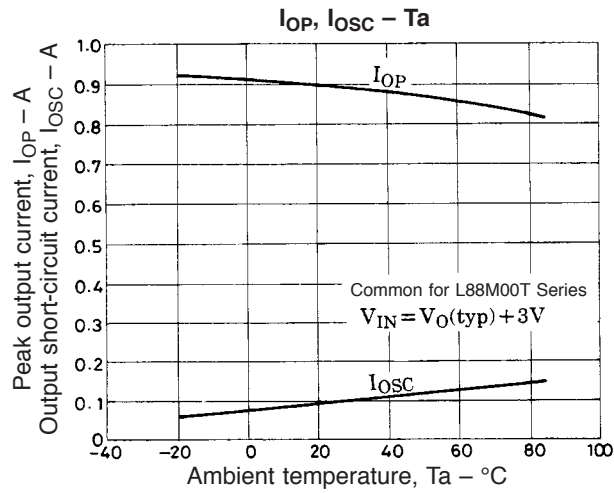
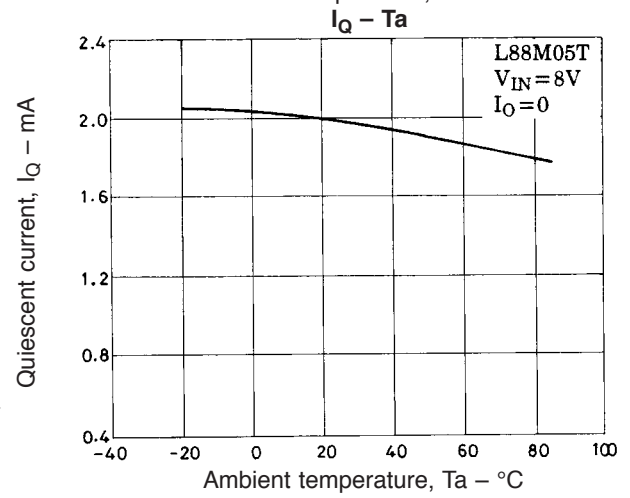
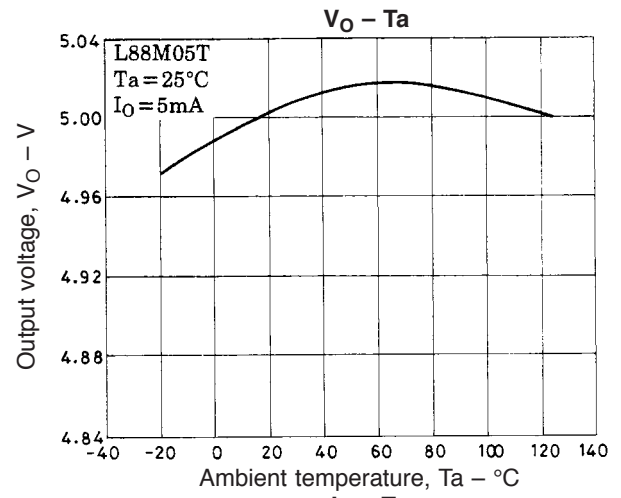
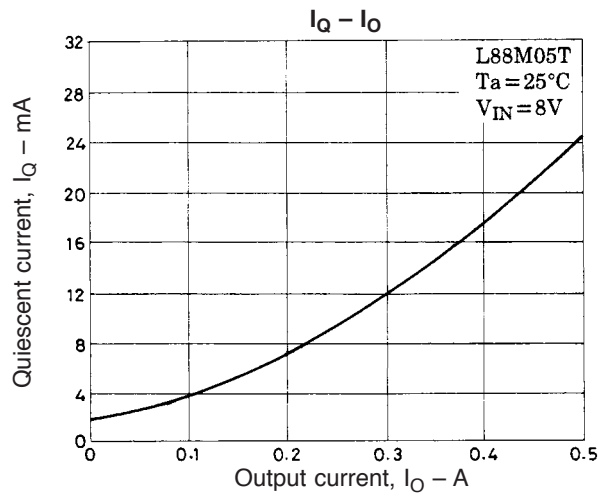
FA forming

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L88M00T Series



L88M00T Series



ORDERING INFORMATION

Device	Package	Shipping (Qty / Packing)
L88M05T-E	TP3H (Pb-Free)	500 / Bulk Bag
L88M05TL-FA-E	TP3H (Pb-Free)	500 / Bulk Bag
L88M05TLL-E	TP3H (Pb-Free)	500 / Bulk Bag
L88M05TL-LR-E	TP3H (Pb-Free)	500 / Bulk Bag
L88M05TL-TL-E	TP3H (Pb-Free)	700 / Tape & Reel
L88M05T-TL-E	TP3H (Pb-Free)	700 / Tape & Reel

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