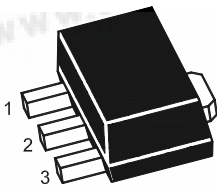


ST 78L09U

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3-Terminal Positive Voltage Regulator



1.OUT 2.GND 3.IN
SOT-89 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

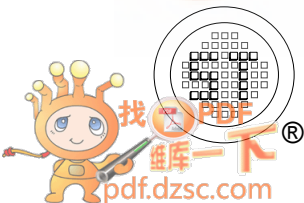
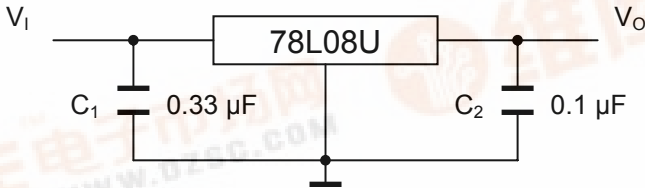
Parameter	Symbol	Value	Unit
Input Voltage	V _I	35	V
Power Dissipation	P _{tot}	800 ¹⁾	mW
Operating Temperature	T _{opr}	- 20 to + 120	°C
Storage Temperature Range	T _s	- 55 to + 150	°C

¹⁾ 15 mm X 25 mm X 0.7 mm alumina ceramic board, T_a ≤ 25 °C

Electrical Characteristics (T_a = 25 °C)

(Unless otherwise specified, 0 °C ≤ T_j ≤ 125 °C, V_I = 15 V, I_O = 40 mA, C_I = 0.33 μF, C_O = 0.1 μF)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Voltage	V _O	T _j = 25 °C	8.64	9	9.36	V
		11.4 V ≤ V _I ≤ 24 V, 1 mA ≤ I _O ≤ 40 mA	8.55	-	9.45	V
		V _I = 15 V, 1 mA ≤ I _O ≤ 70 mA	8.55	-	9.45	V
Line Regulation	Regline	11.4 V ≤ V _I ≤ 24 V, T _j = 25 °C	-	-	200	mV
		12 V ≤ V _I ≤ 24 V, T _j = 25 °C	-	-	160	
Load Regulation	Regload	1 mA ≤ I _O ≤ 100 mA, T _j = 25 °C	-	-	90	mV
		1 mA ≤ I _O ≤ 40 mA, T _j = 25 °C	-	-	45	
Quiescent Current	I _Q	T _j = 25 °C	-	-	6	mA
Quiescent Current Change	ΔI _Q	12 V ≤ V _I ≤ 24 V, I _O = 40 mA	-	-	1.5	mA
		V _I = 15 V, 1 mA ≤ I _O ≤ 40 mA	-	-	0.1	
Output Noise Voltage	V _N	10 Hz ≤ f ≤ 100 KHz, T _j = 25 °C	-	70	-	μV
Ripple Rejection	RR	f = 120 Hz, 12 V ≤ V _I ≤ 24 V, T _j = 25 °C	38	-	-	dB
Dropout Voltage	V _{Drop}	T _j = 25 °C	-	1.7	-	V

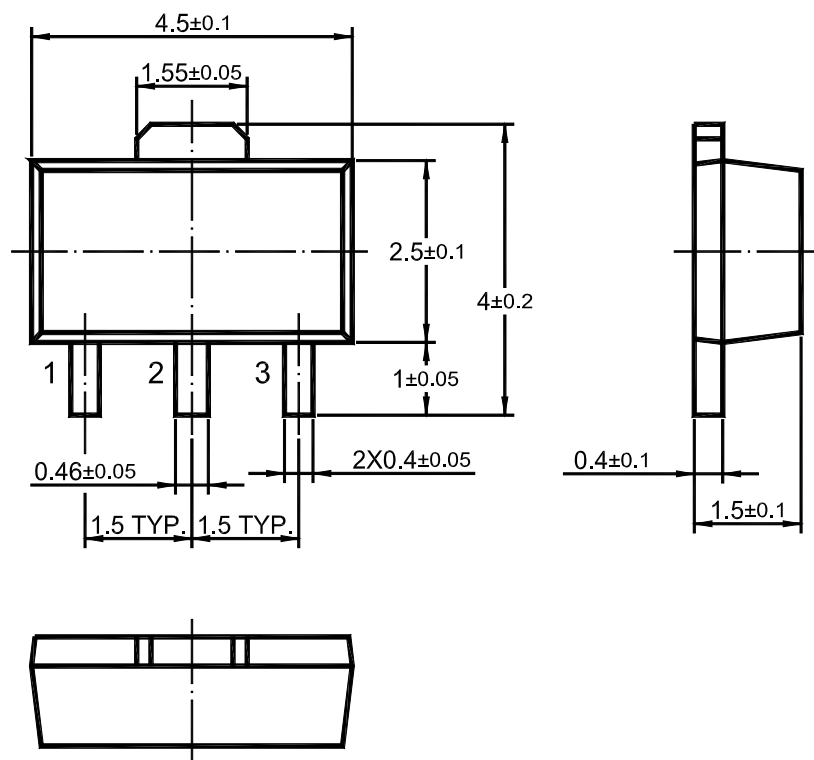


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(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

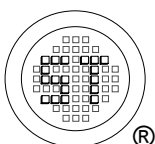


Dated : 05/09/2006

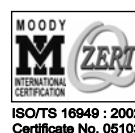
SOT-89 PACKAGE OUTLINE



Dimensions in mm



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