78L12AT

Rev.B Mar.-2025

DATA SHEET

/ Descriptions

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Voltage Regulator in a SOT-89 Plastic Package.

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3-Terminal regulators ,output current up to 100 mA, internal thermal overload protection and short-circuit limiting, HF Product.

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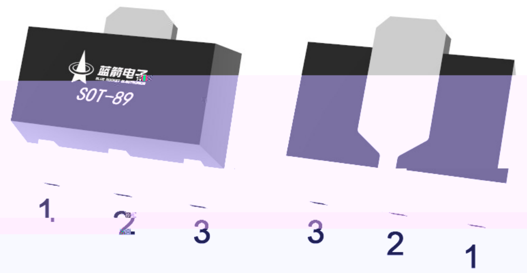
Voltage Regulator.

/ / Equivalent Circuit or Application Circuit



PIN1 χ OUT PIN 2 χ GND PIN 3 χ IN

/ Marking

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See Marking Instructions.

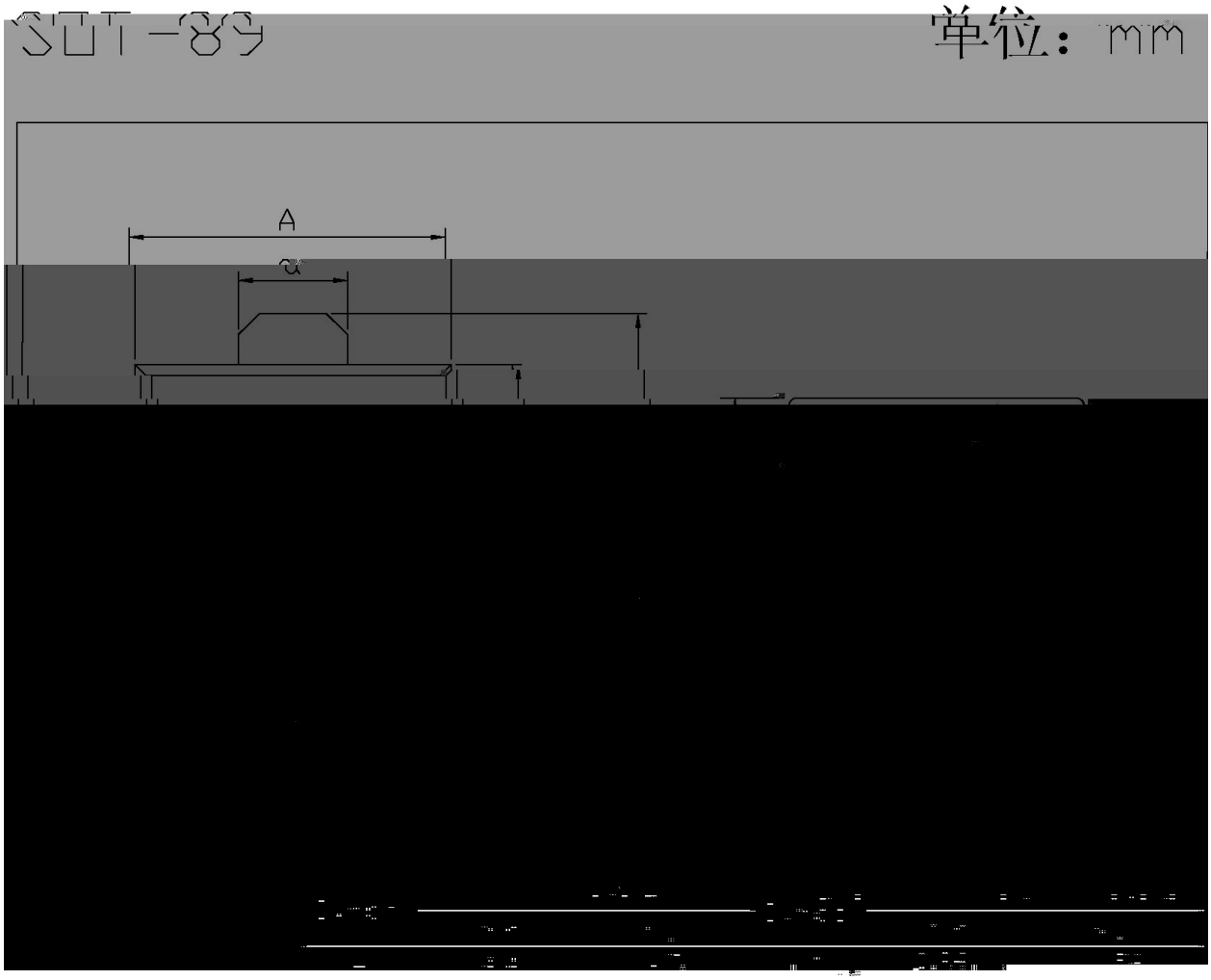
/ Absolute Maximum Ratings(Ta=25)

v ῼ Parameter	ᠰ ᴺ Symbol	ῼ Ӫ Rating	ᴅ Ꜧ Unit
Input voltage	V_I	36	V
Output current	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	/W

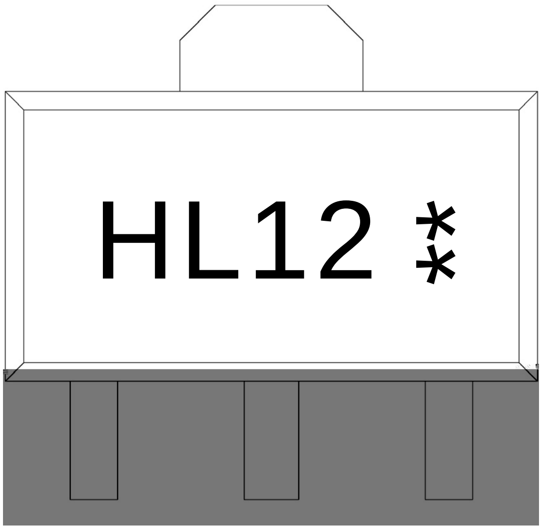
/ Electrical Characteristics(Ta=25 Vi=19V,Io=40mA unless otherwise specified)

v ῼ Parameter	ᠰ ᴺ Symbol	╨ ፡ᛏ ʈ Test Conditions	ῳ ῃ Ӫ Min	Ɛ ʒ Ӫ Typ	ῳ ᶻ Ӫ Max	ᴅ Ꜧ Unit
Output voltage	V_O	I_o 40mA T_j=25	11.5	12	12.6	V
		I_O=1mA to 40mA V_I=14.5V to 27V	11.4		12.6	V
		I_O=1mA to 70mA V_I=19V	11.4		12.6	V
Input regulation	Vo	V_I=14.5V to 27V T_j=25		24	250	mV
		V_I=16V to 27V T_j=25		12	200	mV
Output regulation	V_O	I_O=1mA to 100mA T_j=25		36	100	mV
		I_O=1mA to 40 mA T_j=25		24	50	mV
Ripple rejection	RR	V_I=15V to 25V f=120Hz T_j=25	36	42		dB
Output noise voltage	V_N	f=10Hz~100KHz T_j=25		80		μV
Dropout voltage	V_D	T_j=25		2		V
Bias current	I_Q	T_j=25		2.0	5.5	mA
Bias current change	I_Q	V_I=16V to 27V			1.5	mA
		I_O=1mA to 40mA			0.1	mA

/ Package Dimensions



/ Marking Instructions



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Note:

H:　　Company Code

L12:　　Product Type Code

**:　　Lot No. Code, code change with Lot No

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

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Note: