

## ● Features:

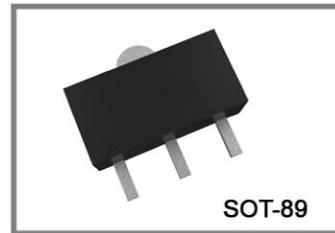
Output current in excess of 150 mA    No external components required    Internal short circuit current limiting  
Internal thermal overload protection    Available in either 5% selections

**78L15**

Three-terminal fixed output voltage regulator  
0.5W、0.15A、15V

● Electrical Characteristics ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Ratings	Unit
Input voltage ( $T_a=25^\circ\text{C}$ )	$V_i$	35	V
Output current	$I_o$	0.15	A
Power dissipation ( $T_a=25^\circ\text{C}$ )	$P_D$	0.5	W
Ambient temperature	$T_{OP}$	-40~85	°C
Storage Temperature	$T_{STG}$	-55~150	°C

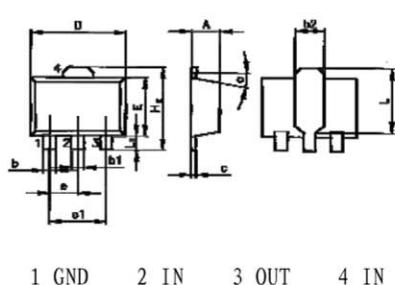


Device is installed in a good heat dissipation

● Electrical characteristics (Unless otherwise specified)  $0 \leq T_j \leq +125^\circ\text{C}$ ,  $V_i=23\text{V}$ ,  $I_o=40\text{mA}$ ,  $C_i=0.33\mu\text{F}$ ,  $C_o=0.1\mu\text{F}$ )

Parameter	Symbol	Test Conditions			Min	Typ	Max	Unit		
		$T_j=25^\circ\text{C}$								
Output voltage	$V_o$	$T_j=25^\circ\text{C}$			14.25	15	15.75	V		
		$1\text{mA} \leq I_o \leq 40\text{mA}$ , $17.5\text{V} \leq V_i \leq 30\text{V}$			13.95	15	16.05			
Voltage Regulation	$S_v$	$T_j=25^\circ\text{C}$	$17.5\text{V} \leq V_i \leq 30\text{V}$		—	—	300	mV		
			$20\text{V} \leq V_i \leq 30\text{V}$		—	—	250			
Current Regulation	$S_i$	$T_j=25^\circ\text{C}$ , $1\text{mA} \leq I_o \leq 100\text{mA}$			—	—	150	mV		
Quiescent Current	$I_Q$	$T_j=25^\circ\text{C}$			—	—	6.5	mA		
Quiescent Current Change	$\Delta I_Q$	$1\text{mA} \leq I_o \leq 40\text{mA}$			—	—	0.1	mA		
		$20\text{V} \leq V_i \leq 30\text{V}$			—	—	1.5			
Input - output differential pressure	$V_i - V_o$	$T_j=25^\circ\text{C}$			—	1.7	—	V		
Ripple Rejection Ratio	$S_{RIP}$	$T_j=25^\circ\text{C}$ , $18.5\text{V} \leq V_i \leq 28.5\text{V}$ ; $f=120\text{Hz}$			—	40	—	dB		

## SOT-89 Dimensions



1 GND    2 IN    3 OUT    4 IN

Symbol	Size SOT-89			Symbol	Size SOT-89		
	min	typ	max		min	typ	max
A		1.5		e		1.5	
b			0.65	e1		3	
b1			0.65	H <sub>E</sub>			4.25
b2		1.6		L	2.6		2.95
c	0.25			L <sub>E</sub>	0.8		1.2
D		4.5		a			10°
E			2.6				

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