

# Positive Voltage Regulator 3 Terminal

**multicomp** PRO

**RoHS  
Compliant**



## Features

- Maximum output current:  $I_{OM}=0.1A$
- Output voltage:  $V_O=15V$
- Continuous total dissipation:  $P_D=0.625W$  ( $T_a = 25^\circ C$ )

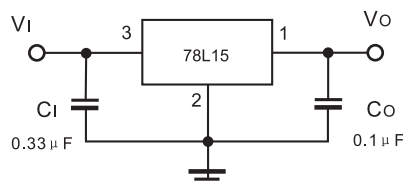
## Absolute Maximum Ratings (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Rating
Input Voltage	$V_I$	35V
Operating Junction Temperature Range	$T_{OPR}$	$-55^\circ C$ to $+125^\circ C$
Storage Temperature Range	$T_{STG}$	$-55^\circ C$ to $+150^\circ C$

## Electrical Characteristics ( $V_I=23V$ , $I_O=40mA$ , $C_I=0.33\mu F$ , $C_O=0.1\mu F$ , unless otherwise specified)

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Output voltage	$V_O$	$T_j=25^\circ C$	14.4	15	15.6	V
		$T_j=0^\circ C$ to $25^\circ C$ , $17.5V \leq V_I \leq 30V$ , $I_O=1mA-40mA$	14.25		15.75	
		$T_j=0^\circ C$ to $25^\circ C$ , $V_I=23V$ , $I_O=1mA-70mA$				
Load regulation	$\Delta V_O$	$T_j=25^\circ C$ , $V_I=23V$ , $I_O=1mA-100mA$		25	150	mV
		$T_j=25^\circ C$ , $V_I=23V$ , $I_O=1mA-40mA$		15	75	
Line regulation	$\Delta V_O$	$T_j=25^\circ C$ , $17.5V \leq V_I \leq 30V$ , $I_O = 40mA$		65	300	mV
		$T_j=25^\circ C$ , $19V \leq V_I \leq 30V$ , $I_O = 40mA$		58	250	
Quiescent current	$I_Q$	$T_j=25^\circ C$ ,		4.6	6.5	mA
Quiescent current change	$\Delta I_Q$	$T_j=0^\circ C$ to $25^\circ C$ , $19V \leq V_I \leq 30V$ , $I_O = 40mA$			1.5	
		$T_j=0^\circ C$ to $25^\circ C$ , $V_I=23V$ , $1mA \leq I_O \leq 40mA$			0.1	
Output noise voltage	$V_N$	$T_j=25^\circ C$ , $10Hz \leq f \leq 100KHz$		82		$\mu V$
Ripple rejection	$R_R$	$T_j=0^\circ C$ to $25^\circ C$ , $18.5V \leq V_I \leq 28.5V$ , $f=120Hz$	34	39		dB
Dropout voltage	$V_d$	$T_j=25^\circ C$		1.7		V

## Typical Application

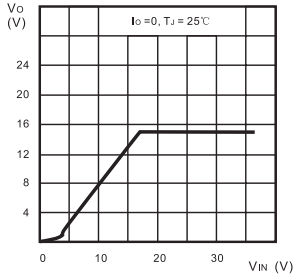


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

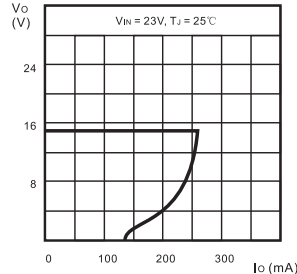
# Positive Voltage Regulator 3 Terminal

multicomp **PRO**

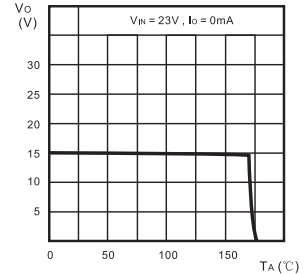
## Typical Characteristics



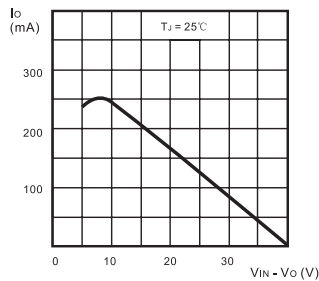
Output Characteristics



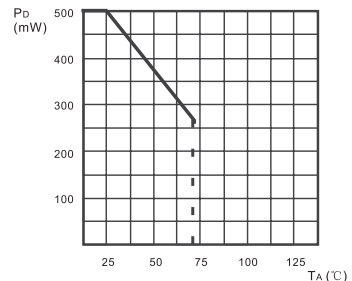
Load Characteristics



Thermal Shutdown

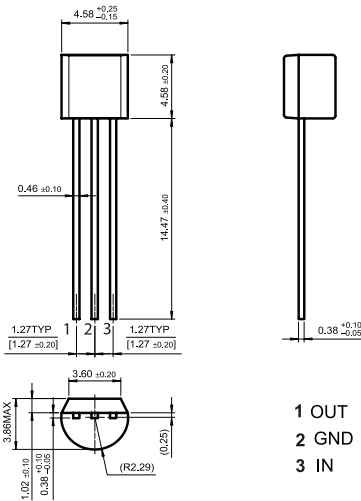


Short Circuit Output Current



Power Dissipation vs. Ambient Temperature

## Diagram



Dimensions : Millimetres

## Part Number Table

Description	Part Number
Positive Voltage Regulator, Fixed, 15V, 0.1A	78L15

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.

Newark.com/multicomp-pro  
Farnell.com/multicomp-pro  
sg.element14.com/b/multicomp-pro

multicomp **PRO**