

■ Features

Maximum output current

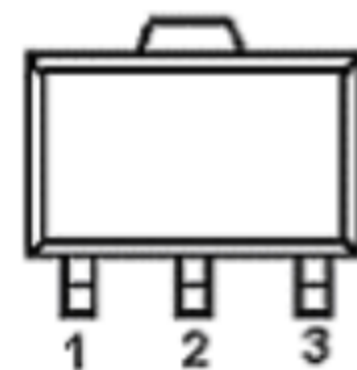
I_{OM} : 0.1 A

Output voltage

V_O : 15 V

Continuous total dissipation

P_D : 0.5 W



1. OUT
2. GND
3. IN

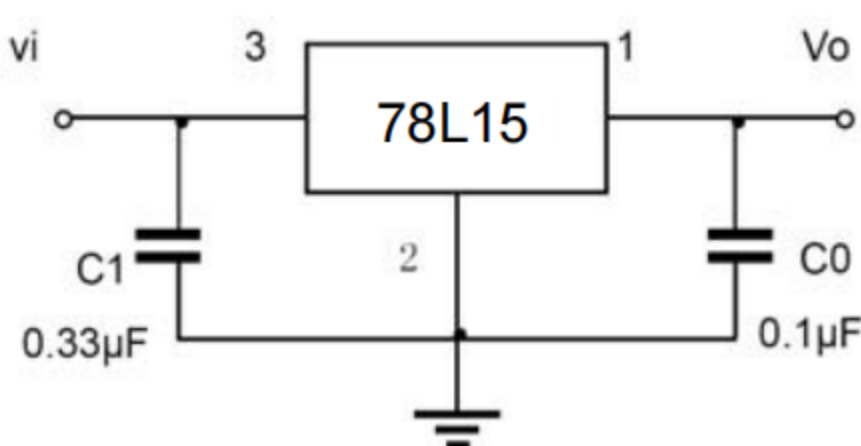
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Units
Input Voltage	V_I	35	V
Operating Junction Temperature Range	T_{OPR}	0~+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^\circ\text{C}$

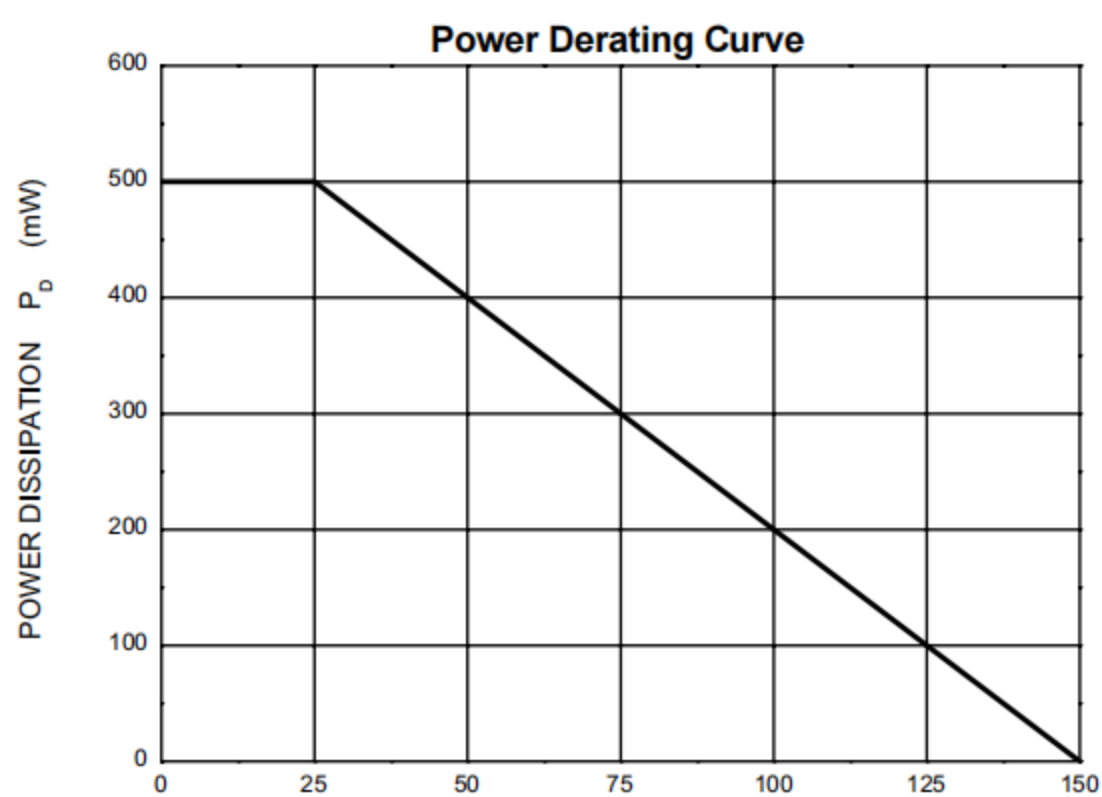
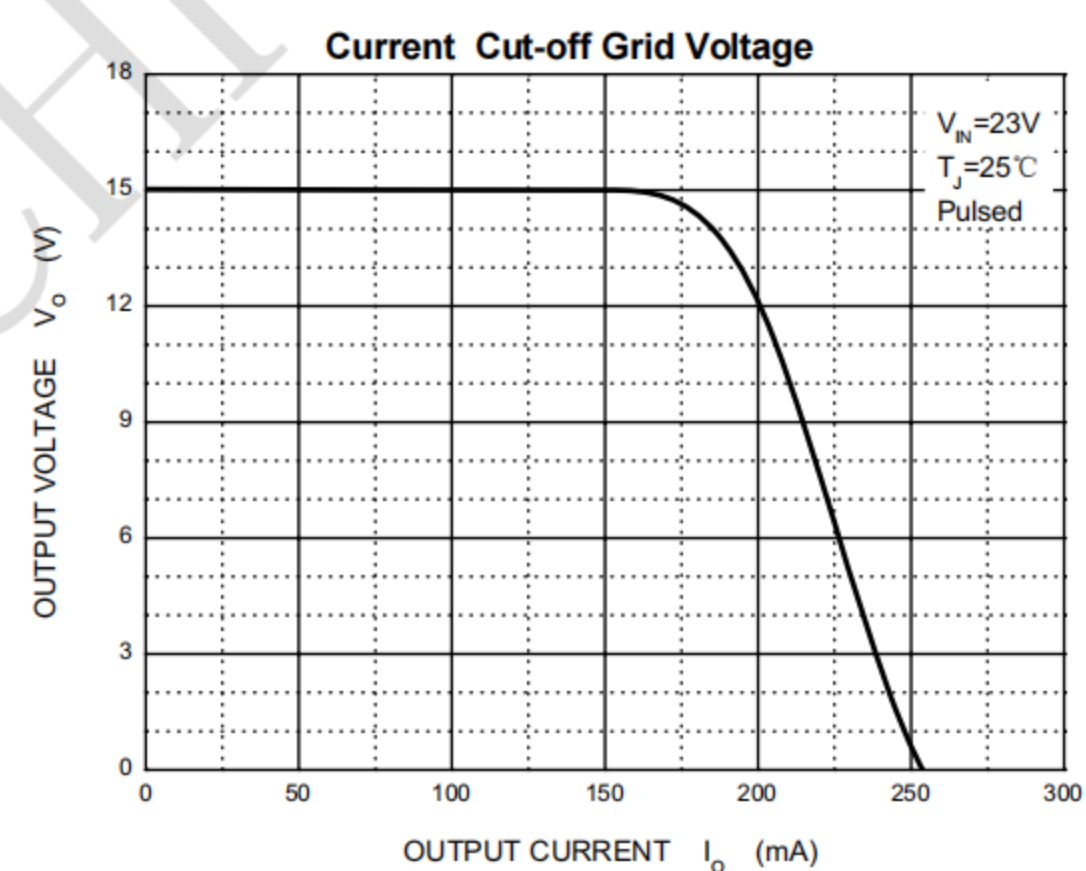
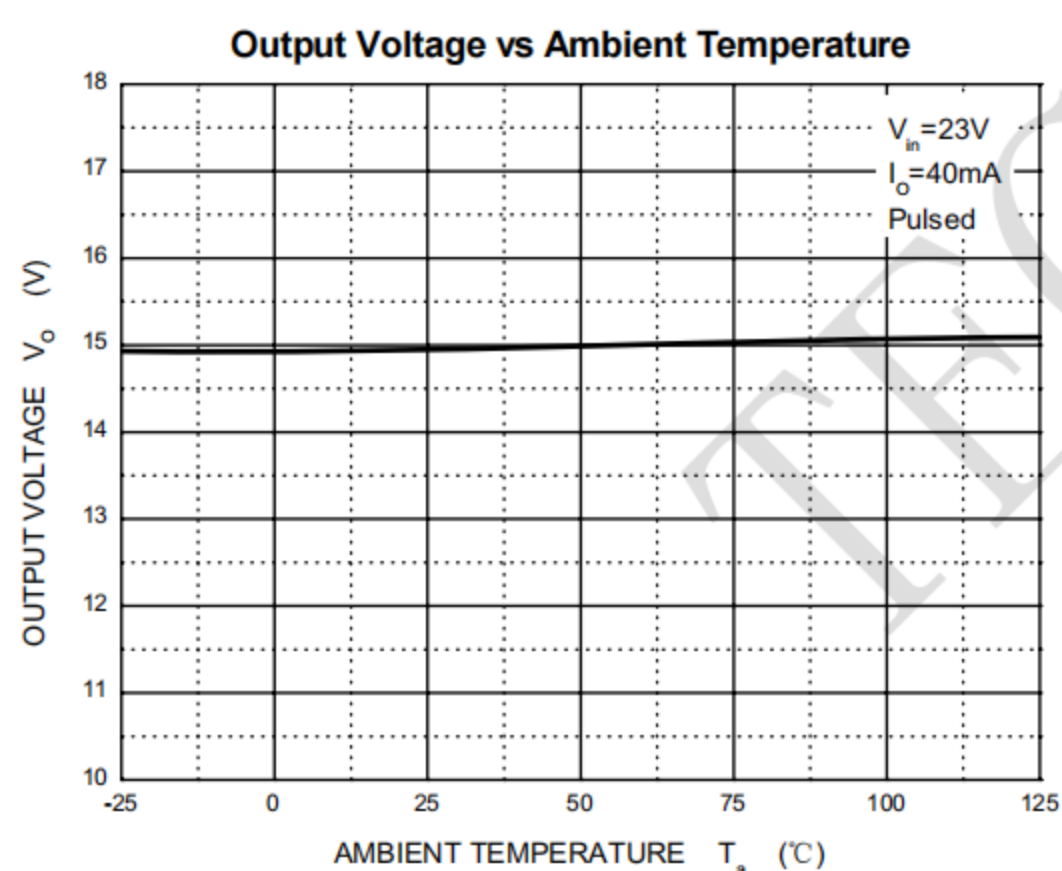
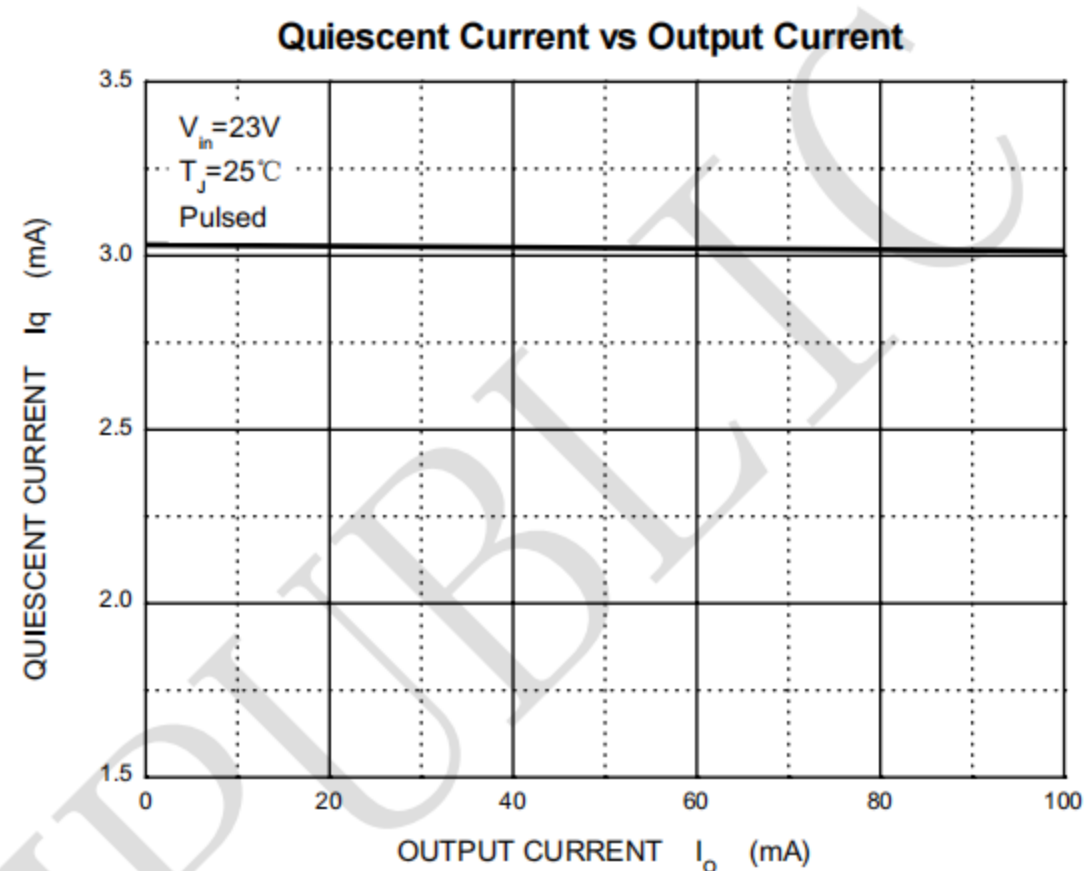
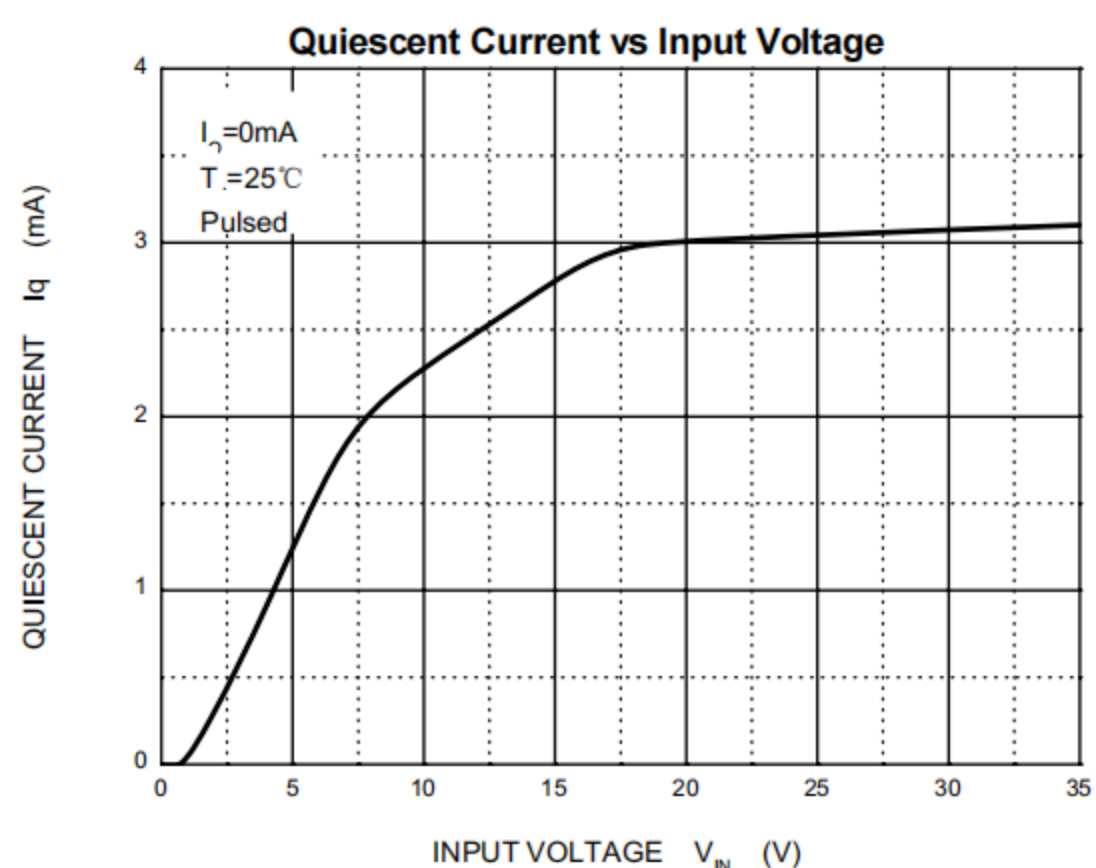
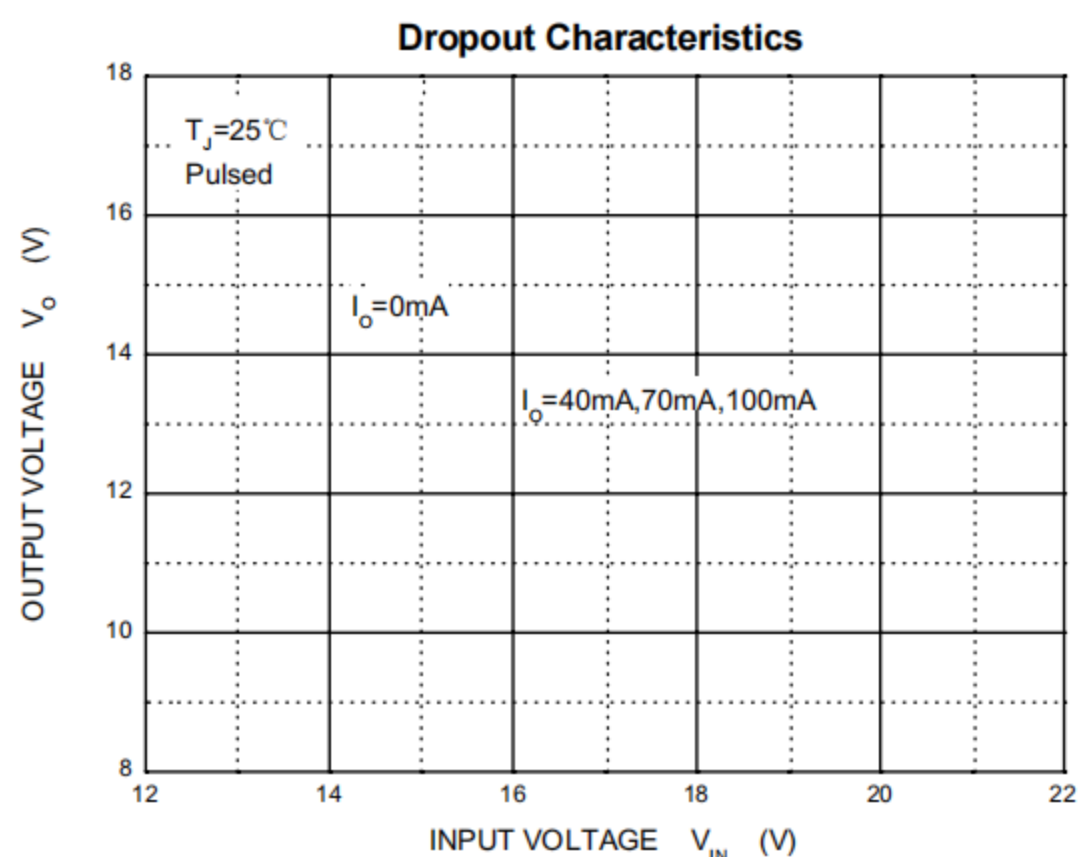
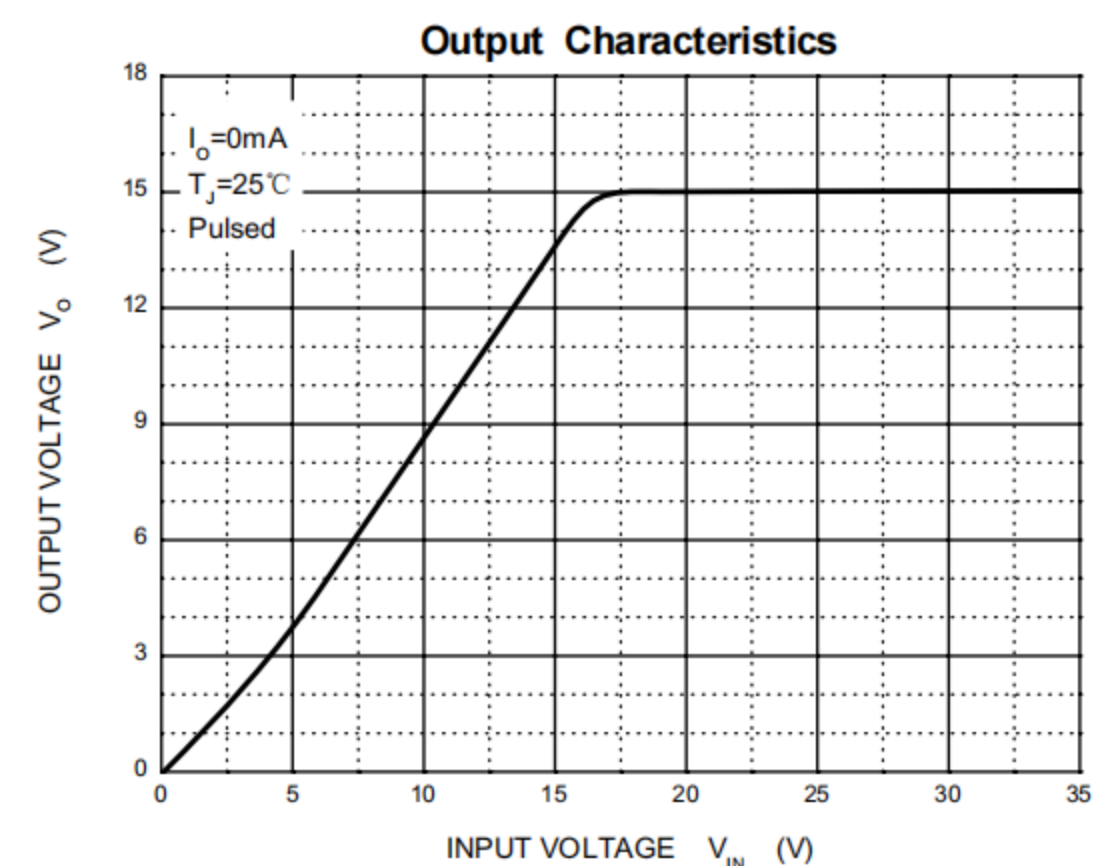
■ Electrical Characteristics ($V_I=10\text{V}$, $I_O=40\text{mA}$, $0^\circ\text{C}<T_J<125^\circ\text{C}$, $C_1=0.33\mu\text{F}$, $C_O=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_O	25°C	14.4	15	15.6	V
		$17.5\text{V}\leq V_I\leq 30\text{V}$, $I_O=1\text{mA}-40\text{mA}$	14.25	15	15.75	V
		$V_I=23\text{V}$, $I_O=1\text{mA}-70\text{mA}$	14.25	15	15.75	V
Load Regulation	ΔV_O	$I_O=1\text{mA}-100\text{mA}$, $V_I=23\text{V}$	25°C	25	150	mV
		$I_O=1\text{mA}-40\text{mA}$, $V_I=23\text{V}$	25°C	15	75	mV
Line regulation	ΔV_O	$17.5\text{V}\leq V_I\leq 30\text{V}$, $I_O=40\text{mA}$	25°C	65	300	mV
		$19\text{V}\leq V_I\leq 30\text{V}$, $I_O=40\text{mA}$	25°C	58	250	mV
Quiescent Current	I_q	25°C		4.6	6.5	mA
Quiescent Current Change	ΔI_q	$19\text{V}\leq V_I\leq 30\text{V}$, $I_O=40\text{mA}$	$0-125^\circ\text{C}$		1.5	mA
	ΔI_q	$1\text{mA}\leq I_O\leq 40\text{mA}$, $V_I=23\text{V}$	$0-125^\circ\text{C}$		0.1	mA
Output Noise Voltage	V_N	$10\text{Hz}\leq f\leq 100\text{KHz}$	25°C	82		μV
Ripple Rejection	RR	$18.5\text{V}\leq V_I\leq 28.5\text{V}$, $f=120\text{Hz}$	$0-125^\circ\text{C}$	34	39	dB
Dropout Voltage	V_d	25°C		1.7		V

■ Typical application.



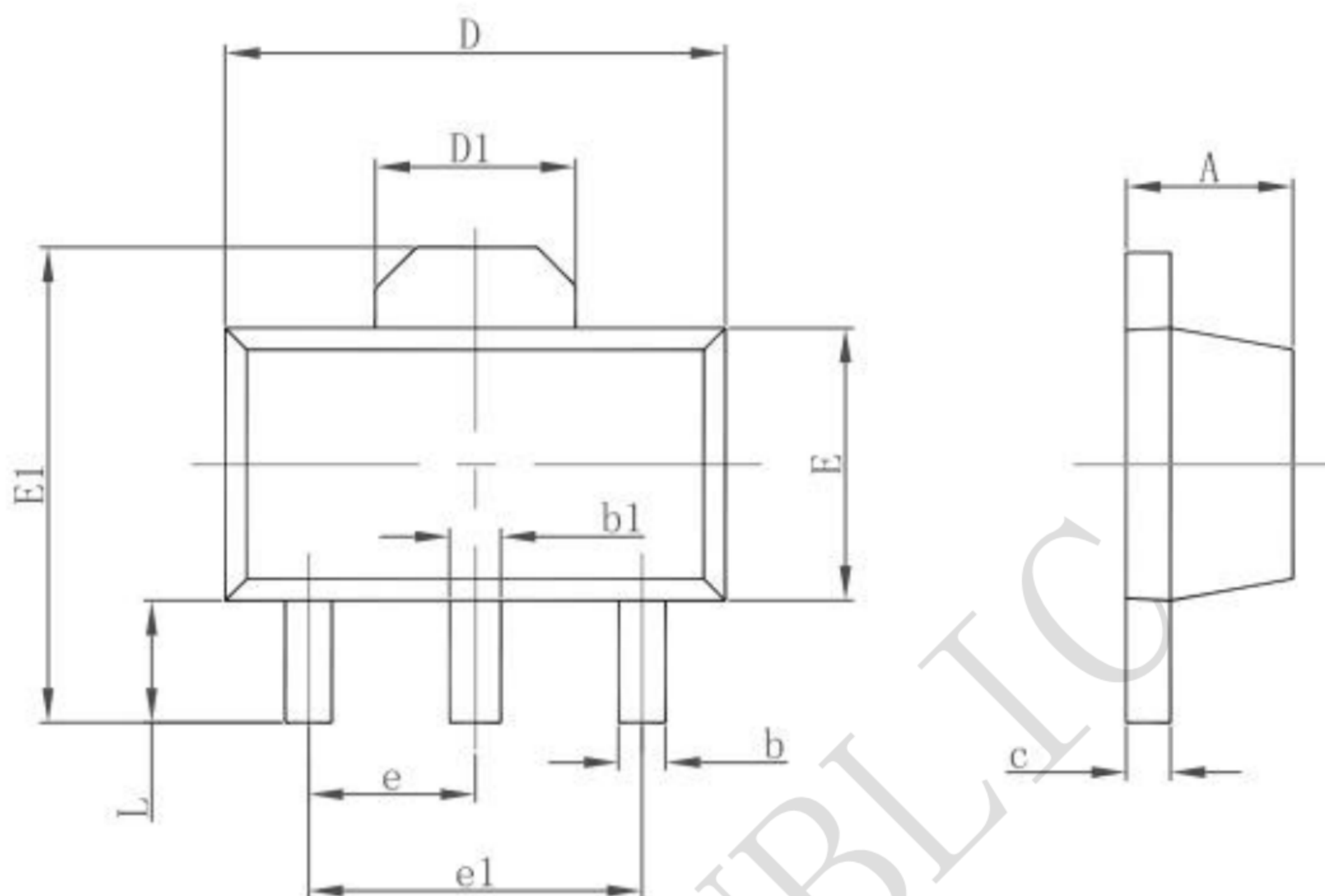
RATING AND CHARACTERISTIC CURVES



Package information

SOT89-3

www.sot23.com.tw



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047