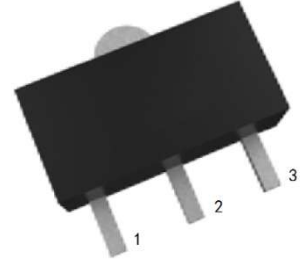


3-Terminal Positive Voltage Regulator

FEATURE

- Maximum output current of 200mA
- Output voltage of 3.3V
- Thermal overload protection
- Short circuit current limiting



1: OUT 2: GND 3: IN
SOT-89 PLASTIC PACKAGE

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

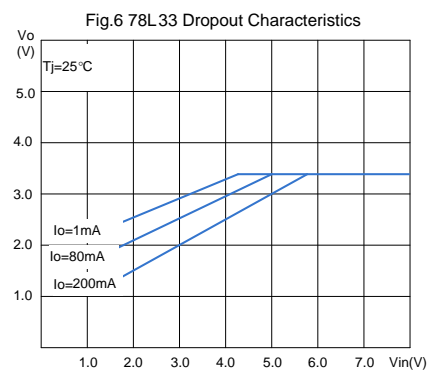
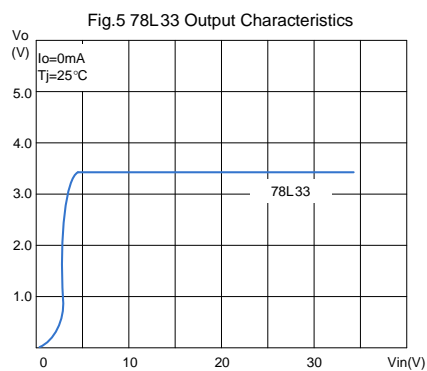
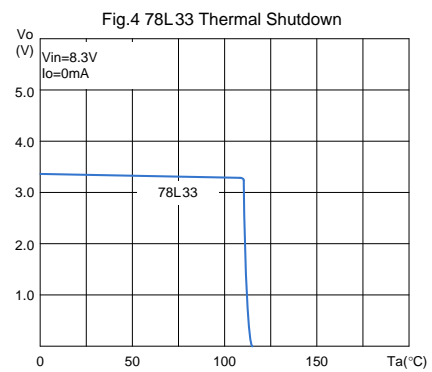
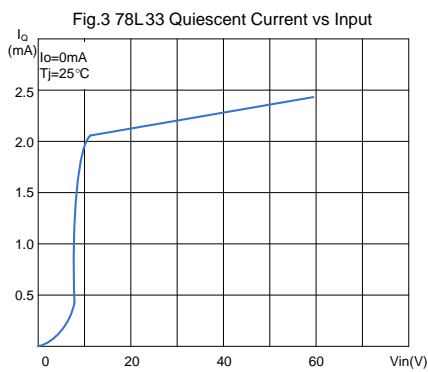
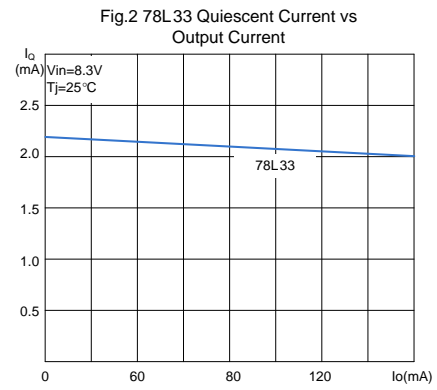
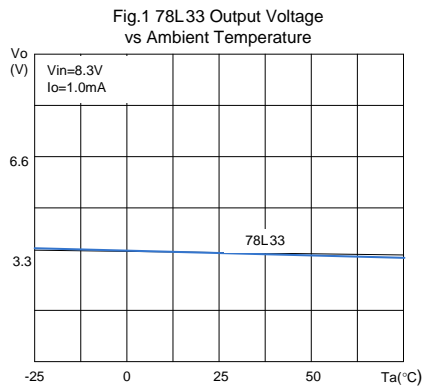
CHARACTERISTICS	SYMBOL	VALUE	UNITS
Input voltage	V _{IN}	30	V
Output Current	I _{OUT}	200	mA
Junction Temperature	T _J	+125	°C
Operating Temperature	T _{OPR}	-20~+120	°C
Storage Temperature Range	T _{STG}	-40~+150	°C

ELECTRICAL CHARACTERISTICS

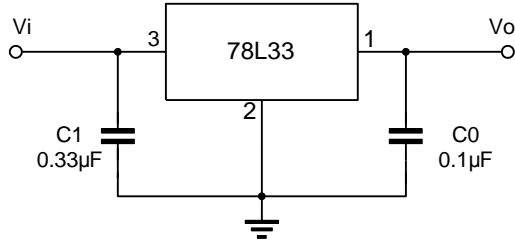
(V_I=8.3V, I_o=80mA, 0<T_j<125°C, C₁=0.33μF, C_o=0.1μF, unless otherwise specified)(Note 1)

Characteristic	Symbol	Test conditions	MIN	TYP	MAX	UNI
Output Voltage	V _O	T _j =25°C	3.168	3.3	3.432	V
		5.3V≤V _I ≤20V, I _O =1mA~80mA	3.135		3.465	V
		I _O =1mA~140mA	3.135		3.465	V (note 2)
Load Regulation	ΔV _o	T _j =25°C, I _O =1mA~200mA		10	60	mV
		T _j =25°C, I _O =1mA~80mA		7	30	mV
Line regulation	ΔV _o	5.3V≤V _I ≤20V, T _j =25°C		7	150	mV
		6.3V≤V _I ≤20V, T _j =25°C		4	100	mV
Quiescent Current	I _q	T _j =25°C		2.0	5.5	mA
Quiescent Current Change	ΔI _q	6.3V≤V _I ≤20V			1.5	mA
	ΔI _q	1mA≤I _O ≤80mA			0.1	mA
Output Noise Voltage	V _N	10Hz≤f≤100kHz, T _j =25°C		40		μV
Temperature coefficient of V _o	ΔV _o /ΔT	I _o =5mA		0.45		mV/°C
Ripple Rejection	RR	6.3V≤V _I ≤16.3V, f=120Hz, T _j =25°C	40	49		dB
Dropout Voltage	V _d			1.7		V

TYPICAL PERFORMANCE CHARACTERISTICS



TYPICAL APPLICATION

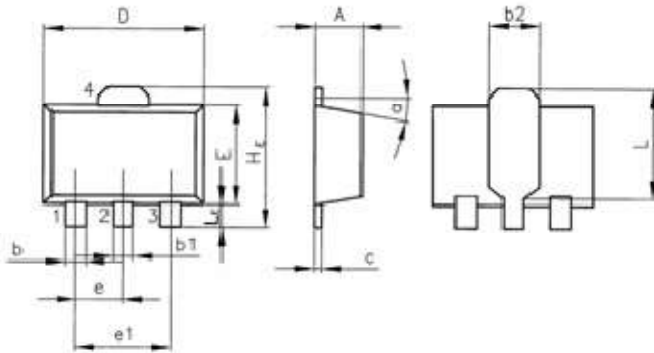


Note 1: The Maximum steady state usable output current and input voltage are very dependent on the heating sinking and/or lead temperature length of the package. The data above represent pulse test conditions with junction temperatures as indicated at the initiation of test.

Note 2: Power dissipation P_D.

Outline Dimension

Unit: mm



SOT-89			
Symbol	min	typ	max
A	1.4	---	1.6
b	0.35	---	0.55
b1	0.4	---	0.65
b2	---	1.6	---
c	0.35	---	0.45
D	4.4	---	4.6
E	2.35	---	2.55
e	---	1.5	---
e1	---	3	---
HE	---	4.15	---
L	---	2.7	---
LE	---	1.0	---
a	---	5°	---