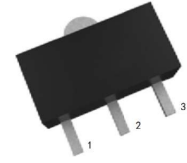


3-Terminal Positive Voltage Regulator

FEATURES

- Maximum Output Current I_o : 0.15 A
- Maximum Input Voltage V_I : 35V
- Continuous Total Dissipation P_D : 0.5 W ($T_a = 25^\circ\text{C}$)



1: OUT 2: GND 3: IN

SOT-89 PLASTIC PACKAGE

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

Parameter	Symbol	Rating	Unit
Input Voltage	V_I	35	V
Output Current	I_o	150	mA
Power Dissipation	P_{tot}	500 ¹⁾	mW
Operating Temperature	T_{opr}	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to +150	$^\circ\text{C}$

¹⁾ Device is installed in the heat dissipation good environment

Electrical Characteristics ($T_a = 25^\circ\text{C}$) (Unless otherwise specified, $V_I = 10\text{ V}$, $I_o = 40\text{ mA}$, $C_I = 0.33\ \mu\text{F}$, $C_o = 0.1\ \mu\text{F}$)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Voltage	V_o	$T_j = 25^\circ\text{C}$	4.75	5	5.25	V
		$7\text{ V} \leq V_I \leq 20\text{ V}$, $1\text{ mA} \leq I_o \leq 40\text{ mA}$	4.65	5	5.35	V
Voltage Regulation	S_v	$7\text{ V} \leq V_I \leq 20\text{ V}$, $T_j = 25^\circ\text{C}$	--	--	150	mV
		$8\text{ V} \leq V_I \leq 20\text{ V}$, $T_j = 25^\circ\text{C}$	--	--	100	
Current Regulation	S_I	$1\text{ mA} \leq I_o \leq 100\text{ mA}$, $T_j = 25^\circ\text{C}$	--	--	60	mV
Quiescent Current	I_Q	$T_j = 25^\circ\text{C}$	--	--	6	mA
Quiescent Current Change	ΔI_Q	$8\text{ V} \leq V_I \leq 20\text{ V}$	--	--	1.5	mA
		$1\text{ mA} \leq I_o \leq 40\text{ mA}$	--	--	0.1	
Ripple Rejection	S_{rip}	$f = 120\text{ Hz}$, $8\text{ V} \leq V_I \leq 18\text{ V}$, $T_j = 25^\circ\text{C}$	--	49	--	dB
Dropout Voltage	V_{Drop}	$T_j = 25^\circ\text{C}$	--	1.7	--	V

Electrical characteristic curve

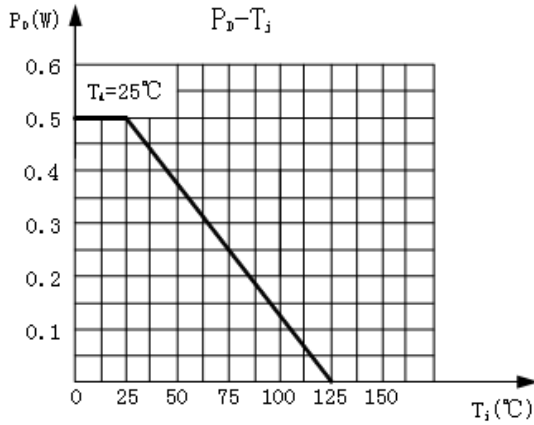


Figure 1: dissipation power relationship with the temperature curve

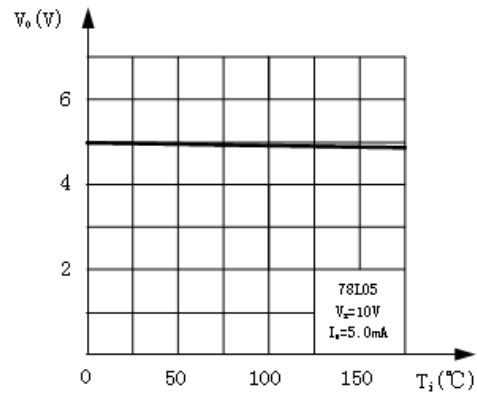
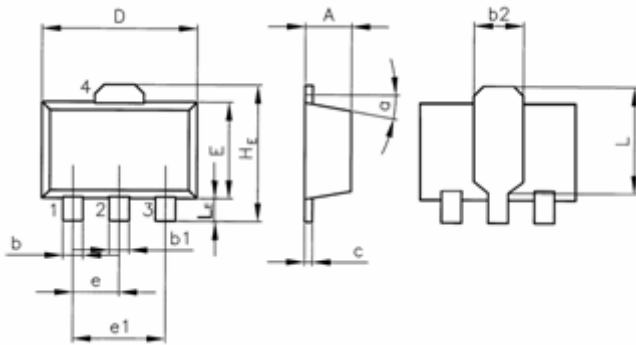


Figure 2 output voltage and junction temperature curve

Outline Dimension

Unit: mm



	SOT-89		
	min	type	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	
α		5°	