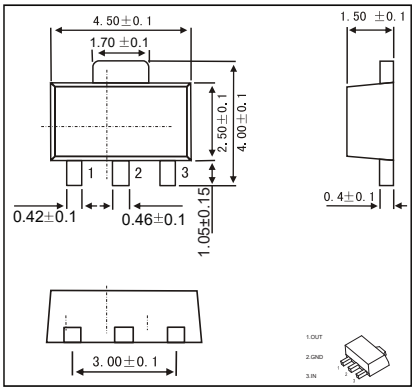
SOT-89 Three-terminal voltage regulator

FEATURES

- Maximum output current I_O=0.1A
- Output Vditage V_O=12V
- Continuous total dissipation PD: 0.5W(Ta= 25)

MECHANICAL DATA

- Case: SOT-89 molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

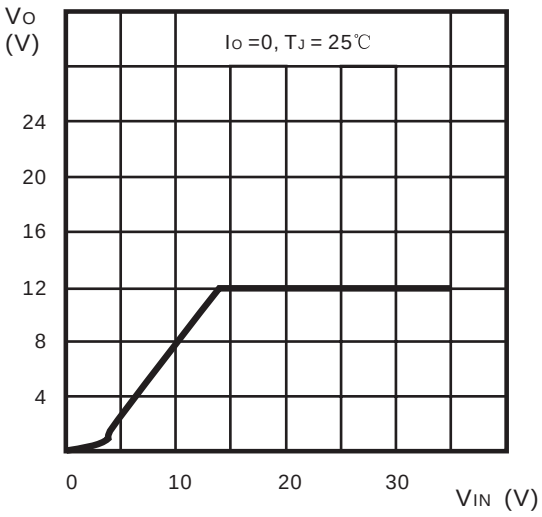
@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Input Voltage	V_I	35	V
Operating Junction Temperature Range	T_{OPR}	-55 ～+125	℃
Storage Temperature Range	T_{STG}	-55 ～+150	℃

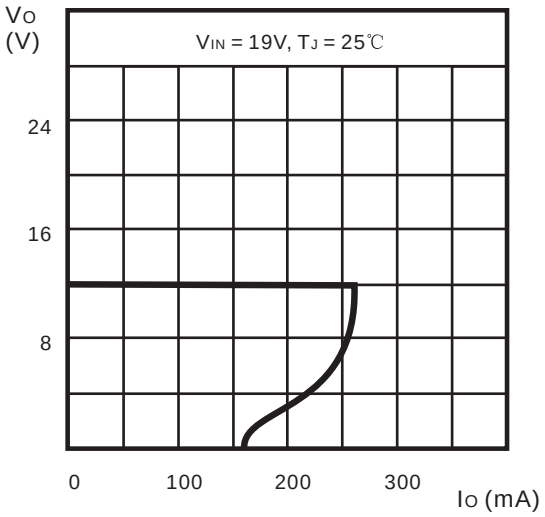
Electrical Characteristics (V_I=19V, I_O=40mA,C_I=0.33uF,C_O=0.1uF, unless otherwise specified)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Output voltage	Vo		25℃	11.5	12	12.5	V
		14V≤V I≤27V, Io=1mA-40mA	0-125℃	11.4	12	12.6	V
		Io=1mA-70mA		11.4	12	12.6	V
Load Regulation	△Vo	Io=1mA-100mA	25℃		22	100	mV
		Io=1mA-40mA	25℃		13	50	mV
Line regulation	△Vo	14.5V≤V I≤27V	25℃		55	250	mV
		16V≤V I≤27V	25℃		49	200	mV
Quiescent Current	Iq		25℃		4.3	6.5	mA
Quiescent Current Change	△Iq	16V≤V I≤27V	0-125℃			1.5	mA
	△Iq	1mA≤I_O≤40mA	0-125℃			0.1	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25℃		70		μV
Ripple Rejection	RR	15V≤V I≤25V,f=120Hz	0-125℃	37	42		dB
Dropout Voltage	Vd		25℃		1.7		V

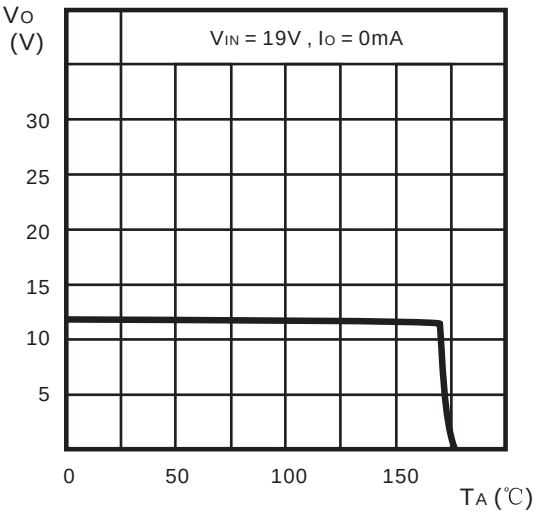
RATINGS AND CHARACTERISTIC CURVES



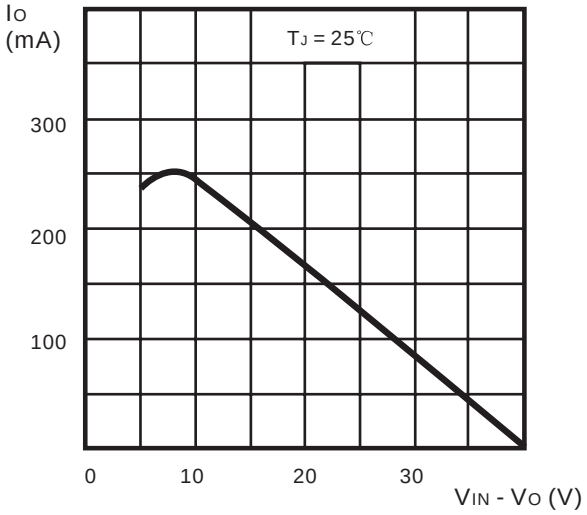
Output Characteristics



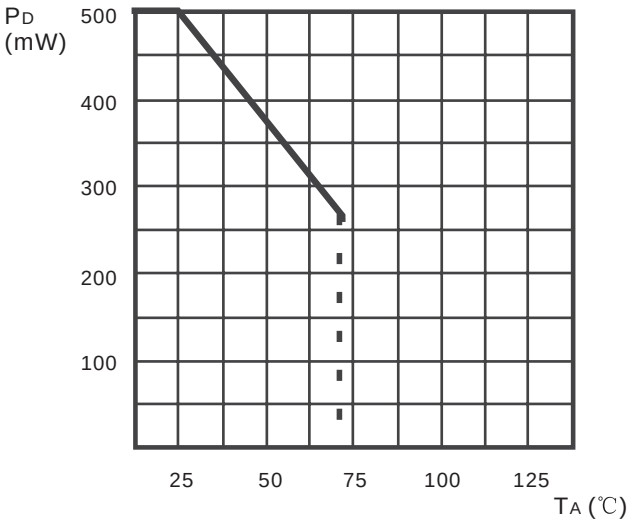
Load Characteristics



Thermal Shutdown



Short Circuit Output Current



Power Dissipation vs. Ambient Temperature