

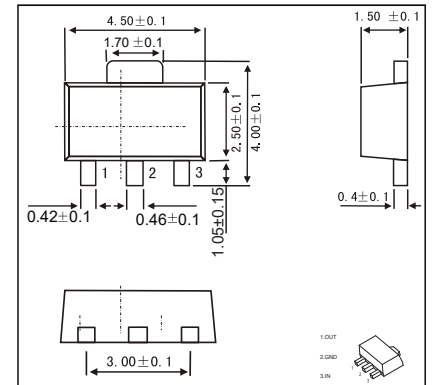
SOT-89 Three-terminal voltage regulator

FEATURES

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

MECHANICAL DATA

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



MAXIMUM RATINGS AND CHARACTERISTICS

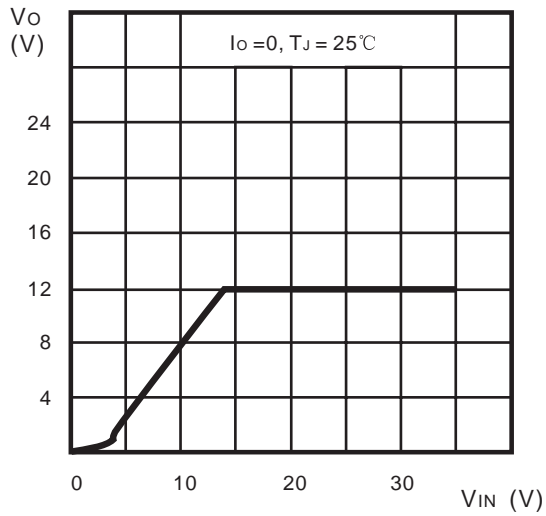
@ 25°C Ambient Temperature (unless otherwise noted)

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

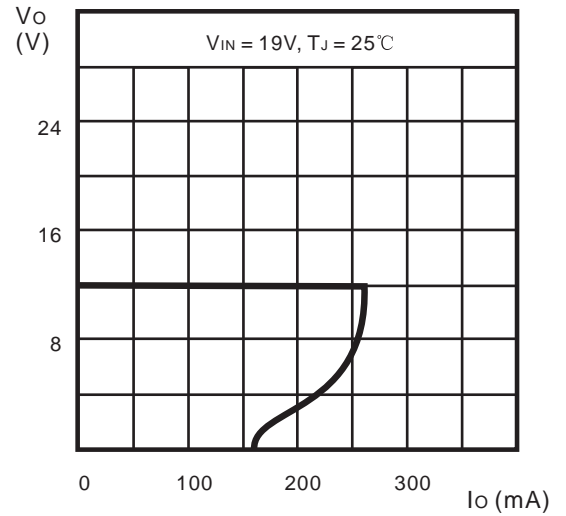
Electrical Characteristics ($V_I=19V$, $I_O=40mA$, $C_I=0.33\mu F$, $C_O=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Output voltage	V_O	25°C	11.5	12	12.5	V	
		0-125°C	$14V \leq V_I \leq 27V$, $I_O=1mA-40mA$	11.4	12	12.6	V
			$I_O=1mA-70mA$	11.4	12	12.6	V
Load Regulation	ΔV_O	$I_O=1mA-100mA$, 25°C		22	100	mV	
		$I_O=1mA-40mA$, 25°C		13	50	mV	
Line regulation	ΔV_O	$14.5V \leq V_I \leq 27V$, 25°C		55	250	mV	
		$16V \leq V_I \leq 27V$, 25°C		49	200	mV	
Quiescent Current	I_q	25°C		4.3	6.5	mA	
Quiescent Current Change	ΔI_q	$16V \leq V_I \leq 27V$, 0-125°C			1.5	mA	
	ΔI_q	$1mA \leq I_O \leq 40mA$, 0-125°C			0.1	mA	
Output Noise Voltage	V_N	10Hz $\leq f \leq$ 100KHz, 25°C		70		μV	
Ripple Rejection	RR	$15V \leq V_I \leq 25V$, $f=120Hz$, 0-125°C	37	42		dB	
Dropout Voltage	V_d	25°C		1.7		V	

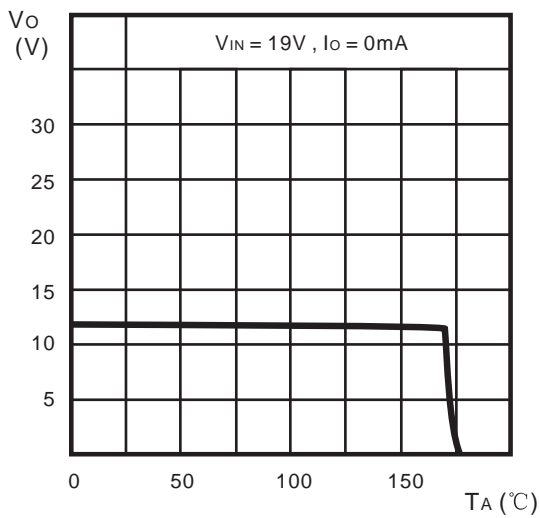
RATINGS AND CHARACTERISTIC CURVES



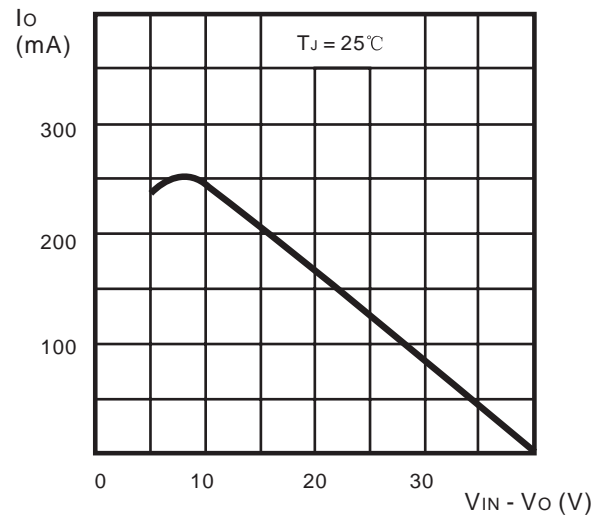
Output Characteristics



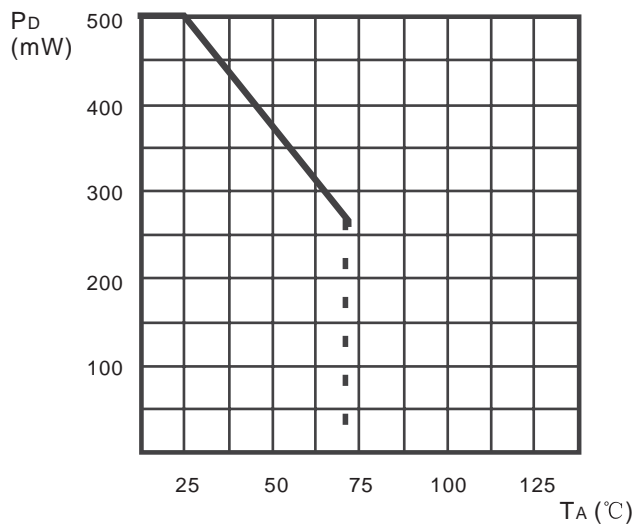
Load Characteristics



Thermal Shutdown



Short Circuit Output Current



Power Dissipation vs. Ambient Temperature