

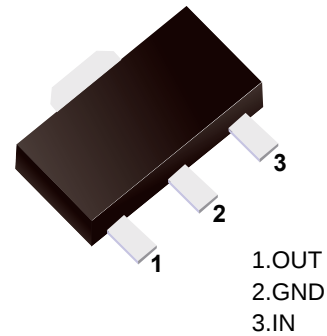
»Features

Maximum Output current IO: 0.1A

Output Voltage Vo: 9V

Continuous Total Dissipation PD: 0.5W (Ta = 25°C)

»Pin Configurations



»General Description

- Voltage Regulator
- SOT-89 Plastic Package

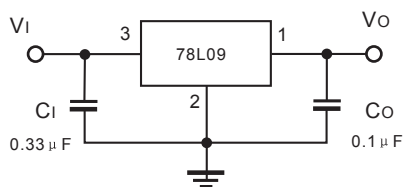
»Absolute Maximum Ratings @TA=25°C unless otherwise noted

Parameter	Symbol	Rating	Unit
Input Voltage	VI	30	V
Operating Junction Temperature Range	TOPR	-55 ~ +125	°C
Storage Temperature Range	TSTG	-55 ~ +150	°C

»Electrical Characteristics @TA=25°C unless otherwise noted

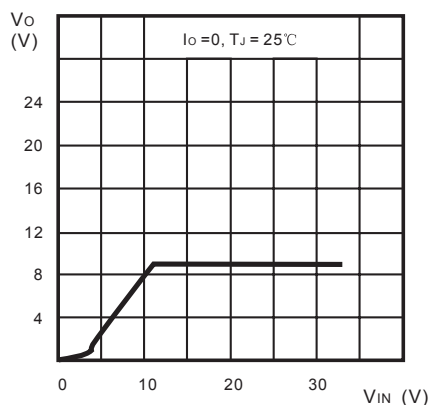
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	Vo	TJ = 25°C	8.64	9.0	9.36	V
		TJ = 0 ~ 125°C, 12V ≤ VI ≤ 24V, Io = 1mA ~ 40mA	8.55	9.0	9.45	V
		TJ = 0 ~ 125°C, Io = 1mA ~ 70mA	8.55	9.0	9.45	V
Load Regulation	ΔVo	TJ = 25°C, Io = 1mA ~ 100mA		19	90	mV
		TJ = 25°C, Io = 1mA ~ 40mA		11	40	mV
Line Regulation	ΔVo	TJ = 25°C, 12V ≤ VI ≤ 24V		45	175	mV
		TJ = 25°C, 13V ≤ VI ≤ 24V		40	125	mV
Quiescent Current	Iq	TJ = 25°C		4.1	6.0	mA
Quiescent current Change	ΔIq	TJ = 0 ~ 125°C, 13V ≤ VI ≤ 24V			1.5	mA
		TJ = 0 ~ 125°C, 1mA ≤ Io ≤ 40mA			0.1	
Output Noise Voltage	VN	TJ = 25°C, 10Hz ≤ f ≤ 100KHz		58		μV
Ripple Rejection	RR	TJ = 0 ~ 125°C, 15V ≤ VI ≤ 25V, f = 120Hz		45		dB
Dropout Voltage	VD	TJ = 25°C		1.7		V

»Typical Application

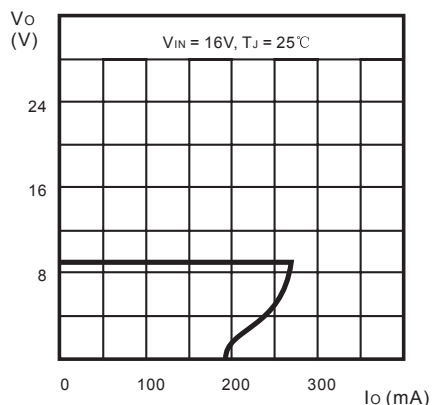


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.

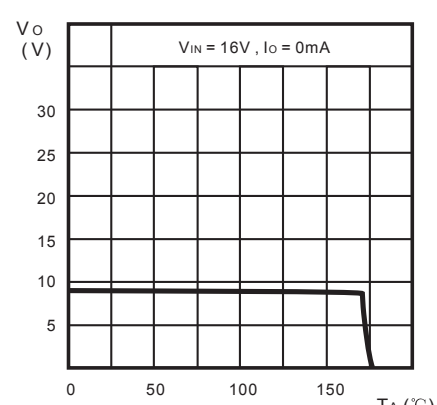
»Typical Performance Characteristics (T_J = 25 °C, unless otherwise noted))



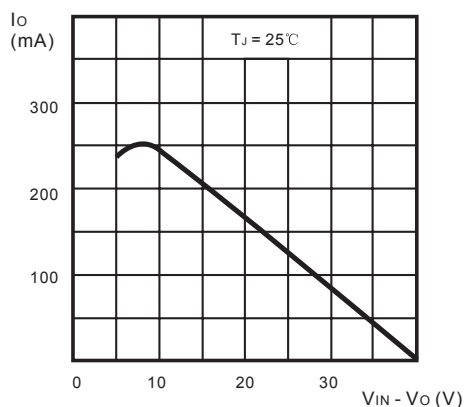
Output Characteristics



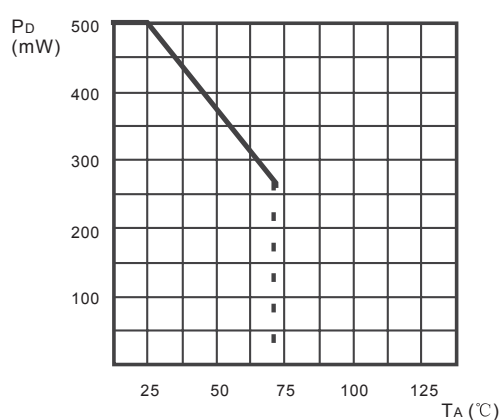
Load Characteristics



Thermal Shutdown



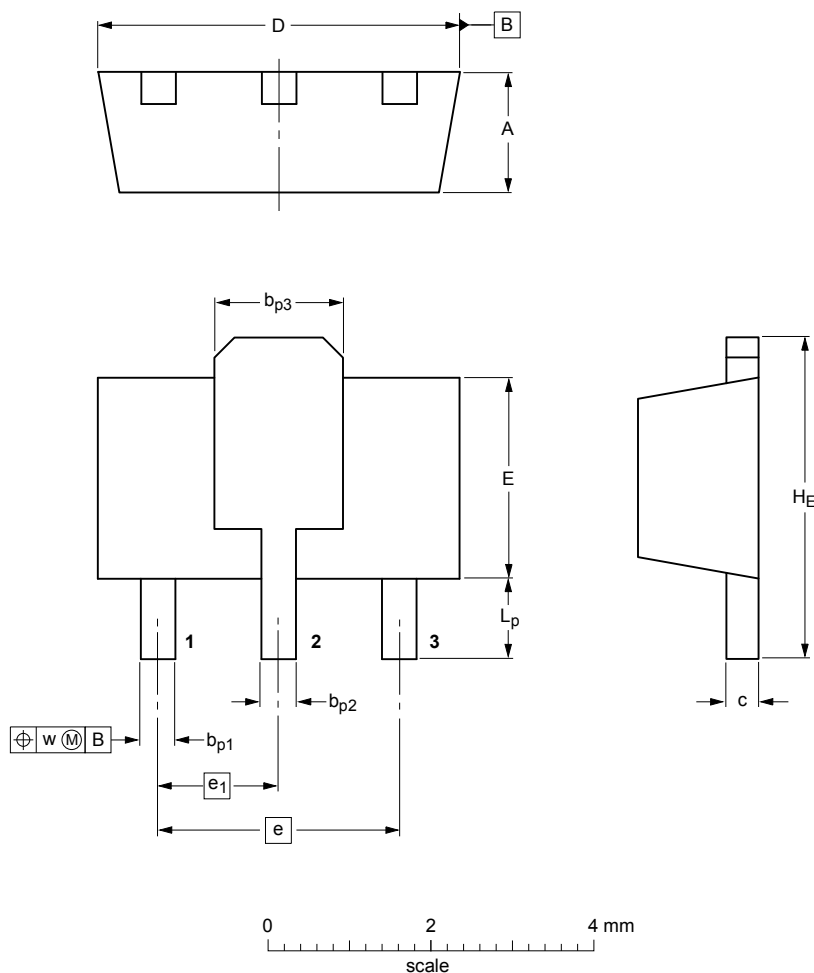
Short Circuit Output Current



Power Dissipation vs. Ambient Temperature

»Package Information

SOT-89



DIMENSIONS (mm are the original dimensions)

UNIT	A	b _{p1}	b _{p2}	b _{p3}	c	D	E	e	e ₁	H _E	L _p	w
mm	1.6 1.4	0.48 0.35	0.53 0.40	1.8 1.4	0.44 0.23	4.6 4.4	2.6 2.4	3.0	1.5	4.25 3.75	1.2 0.8	0.13