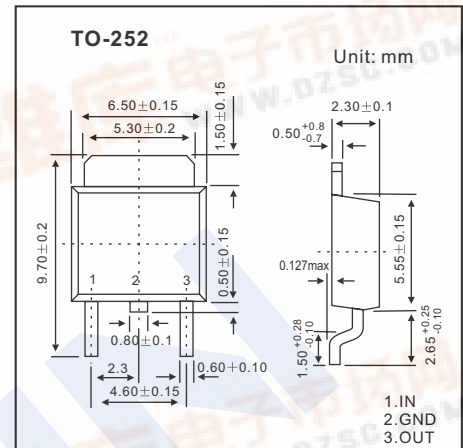


SMD Type IC

Three-Terminal Positive Voltage Regulator

LM78M09



■ Features

- Maximum Output current Iom: 0.5A
- Output Voltage Vo: 9V
- Continuous Total Dissipation Pd: 1.25W (TA = 25°C)

■ Absolute Maximum Ratings (Operating temperature range applies unless otherwise specified)

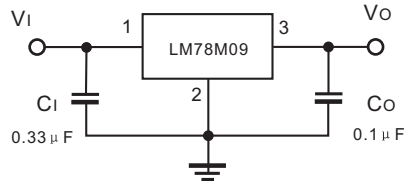
Parameter	Symbol	Rating	Unit
Input Voltage	Vi	35	V
Operating Junction Temperature Range	TOPR	-55 ~ +125	°C
Storage Temperature Range	TSTG	-65 ~ +150	°C

■ Electrical Characteristics (Vi=16V, Io=350mA, Ci=0.33 μ F, Co=0.1 μ F, unless otherwise specified)

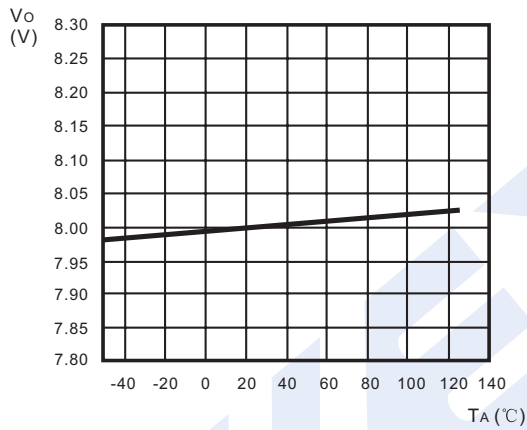
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Output Voltage	Vo	TJ = 25°C	8.65	9	9.35	V
		TJ = 0~125°C, 11.5V≤Vi≤24V, Io=5mA~350mA, Po≤15W	8.55	9	9.45	V
Load Regulation	ΔVo	TJ = 25°C, Io=5mA~0.5A		20	180	mV
		TJ = 25°C, Io=5mA~200mA		10	90	mV
Line Regulation	ΔVo	TJ = 25°C, 11.5V≤Vi≤26V, Io = 200mA		6	100	mV
		TJ = 25°C, 12V≤Vi≤26V, Io = 200mA		2	50	mV
Quiescent Current	Iq	TJ = 25°C		4.6	6	mA
Quiescent current Change	ΔIq	TJ = 0~125°C, 11.5V≤Vi≤26V, Io = 200mA			0.8	mA
		TJ = 0~125°C, 5mA≤Io≤350mA			0.5	
Output Noise Voltage	VN	TJ = 25°C, 10Hz≤f≤100KHz		60		μ V
Ripple Rejection	RR	TJ=0~125°C, 13V≤Vi≤23V, f=120Hz, Io=300mA	56	80		dB
Dropout Voltage	Vd	TJ = 25°C, Io = 350mA		2		V
Short Circuit Current	Isc	TJ = 25°C, Vi = 16V		250		mA
Peak Current	IPK	TJ = 25°C		0.7		A

LM78M09

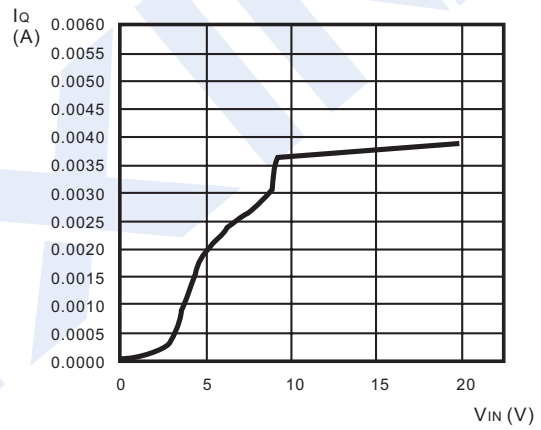
Typical Application



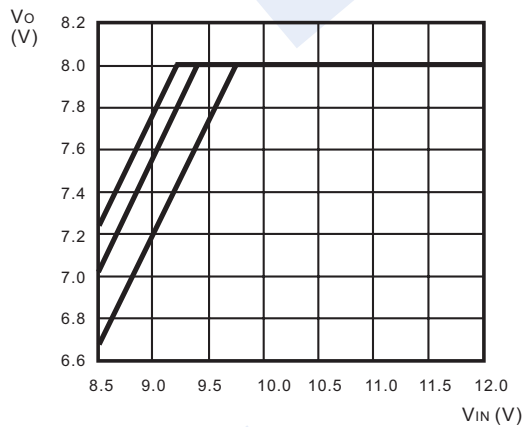
Typical Characteristics



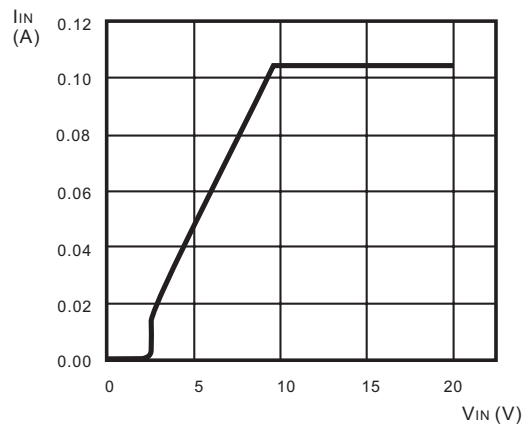
Ambient Temperature vs Output Voltage



Input Voltage vs Quiescent Current (TJ = 25°C)



Input Voltage vs Output Voltage (TJ = 25°C)



Input Voltage vs Input Current (TJ = 25°C)