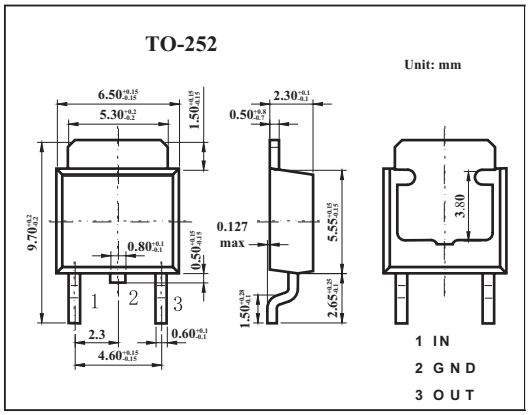
Three-terminal Positive Voltage Regulator

78M08



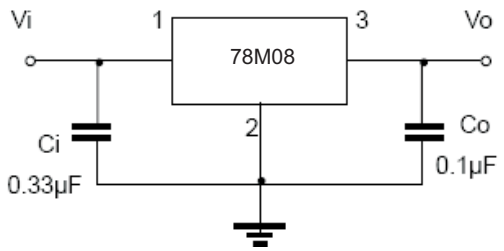
■ Features

- Maximum output current I_{OM}: 0.5 A
- Output voltage Vo: 8V
- Continuous total dissipation P_D:1.25W

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Input voltage	V_I	35	V
Operating junction temperature range	T_{OPR}	-55 to +125	℃
Storage temperature range	T_{STG}	-65 to +150	℃

■ Electrical Characteristics (Vi=14V,Io=350mA,0℃<Tj<125℃,Ci=0.33μF,Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Output voltage	V_O	Tj=25℃	7.7	8	8.3	V
		10.5≤V_I≤23V,Io=5mA-350mA,P_O≤15W	7.6	8	8.4	V
Load regulation	△V_O	Tj=25℃, Io=5mA-0.5A		20	160	mV
		Tj=25℃, Io=5mA-200mA		10	80	mV
Line regulation	△V_O	Tj=25℃,10.5V≤V_I≤25V, Io=200mA		6	100	mV
		Tj=25℃,11V≤V_I≤25V, Io=200mA		2	50	mV
Quiescent current	Iq	Tj=25℃		4.6	6	mA
Quiescent current change	△Iq	10.5V≤V_I≤25V, Io=200mA			0.8	mA
	△Iq	5mA≤I_O≤350mA			0.5	mA
Output noise voltage	V_N	10Hz≤f≤100KHz		52		uV
Ripple rejection	RR	11.5V≤V_I≤21.5V,f=120Hz, Io=300mA	56	80		dB
Dropout voltage	Vd	Tj=25℃, Io=350mA		2		V
Short circuit current	I_{sc}	Vi=14V, Ta=25℃		250		mA
Peak current	I_{pk}	Tj=25℃		0.7		A

■ Typical Application