Elektronische Bauelemente

SJ78M09

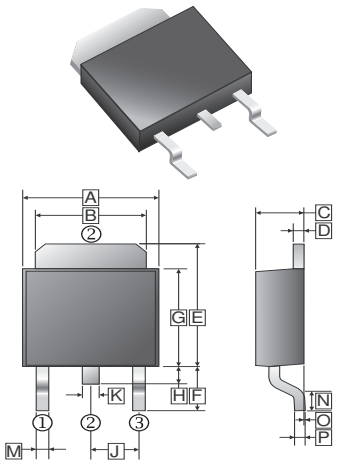
3-Terminal
Positive Voltage Regulator

RoHS Compliant Product
A suffix of "-C" specifies halogen and lead-free

DESCRIPTION

The SJ78M09 series of three-terminal positive regulators are available in the TO-252 package and with 5Vfixed output voltage, making it useful in a wide range of applications. This regulator can provide local on-card regulation, eliminating the distribution problems associated with single point regulation.It employs internal current limiting, thermal shut-down and safe operating area protection, making it essentially indestructible. If adequate heat sinking is provided, they can deliver over 0.5A output current. Although designed primarily as fixed voltage regulators, these devices can be used with external components to obtain adjustable voltages and currents.

TO-252

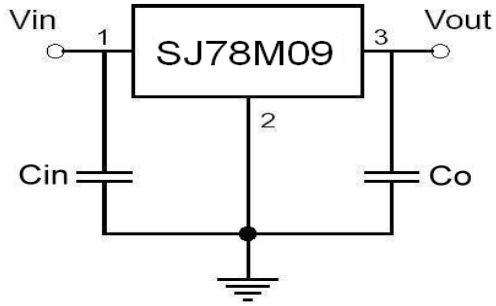


REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.4	6.8	J	2.30 REF.	
B	5.20	5.50	K	0.70	0.90
C	2.20	2.40	M	0.50	1.1
D	0.45	0.58	N	0.9	1.6
E	6.8	7.3	O	0	0.15
F	2.40	3.0	P	0.43	0.58
G	5.40	6.2			
H	0.8	1.20			

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-252	2.5K	13' inch

TYPICAL APPLICATION



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNITS
Input Voltage	V_{IN}	25	V
Output Current	I_O	500	mA
Operating Temperature Range	T_J	0~+125	℃
Storage Temperature Range	T_{STG}	-65~+150	℃
Total Power Dissipation	P_D	1.25	W

ELECTRICAL CHARACTERISTICS

(Refer to the test circuits, T_J=25 ℃, I_O=350mA, V_{IN}=16V, C_{IN}=0.33μF, C_O=0.1μF unless otherwise specified)

Symbol	Test Conditions	Min	Typ	Max	Unit
V_O		8.65	9	9.35	V
	11.5V≦V_{IN}≦24V, 5mA≦I_O≦350mA, P_O≦15W, T_J=0~125℃	8.55	9	9.45	
△V_O(Line Regulation)	11.5V≦V_{IN}≦26V, I_O=200mA,	-	6	100	mV
	12V≦V_{IN}≦26V, I_O=200mA,	-	2	50	
△V_O(Load Regulation)	5mA≦I_O≦500mA,	-	20	180	mV
	5mA≦I_O≦200mA,	-	10	90	
I_Q		-	4.6	6	mA
△I_Q	5mA≦I_O≦350mA, T_J=0~125℃	-	-	0.5	mA
	11.5V≦V_{IN}≦26V, I_O=200mA, T_J=0~125℃	-	-	0.8	
V_N	10Hz≦f≦100KHz	-	60	-	μA
RR	13V≦V_{IN}≦23V, f=120Hz, I_O=300mA, T_J=0~125℃	56	80	-	dB
V_D	Io=350mA	-	2	-	V
I_{SC}	V_{IN}=16V	-	250	-	mA
I_{PK}		-	500	-	mA