

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

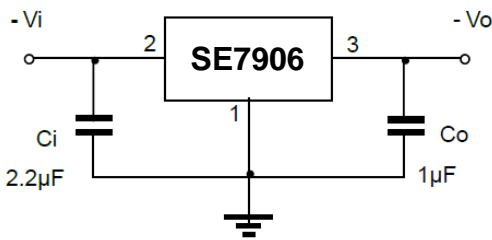
**DESCRIPTION**

The SE7906 of fixed-voltage monolithic integrated-circuit voltage regulators designed to complement. The SE7906 in a wide range of applications. These applications include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. The internal current limiting and thermal shutdown features of these regulators make them essentially immune to overload. In addition to use as fixed-voltage regulators, these devices can be used with external components to obtain adjustable output voltage and current and also as the power pass element in precision regulators.

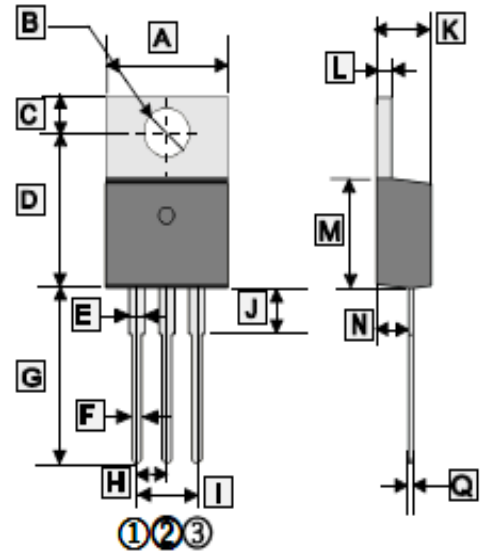
**FEATURES**

- 1.5A Output Current
- Internal Short-Circuit Current Limiting
- Output Transistor Safe-Area Compensation
- No External Components
- Internal Thermal Overload Protection

**TYPICAL APPLICATION**



**TO-220J**



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	9.57	10.57	I	4.68	5.48
B	3.54	4.14	J	2.95	3.96
C	2.54	2.94	K	4.27	4.87
D	11.86	13.26	L	1.07	1.47
E	0.97	1.57	M	8.0	10.0
F	0.51	1.11	N	2.03	2.92
G	12.7	13.8	Q	0.30	0.65
H	2.540 TYP.				

**ORDER INFORMATION**

Part Number	Type
SE7906	Lead (Pb)-free
SE7906-C	Lead (Pb)-free and Halogen-free

**MAXIMUM RATINGS** (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Input Voltage	$V_{IN}$	-35	V
Output Voltage	$V_O$	-6	V
Continuous Total Dissipation	$P_D$	1.5	W
Thermal Resistance Junction-Air	$R_{\theta JA}$	83.3	°C / W
Operating Junction & Storage Temperature Range	$T_J, T_{STG}$	0~150, -55~150	°C

**ELECTRICAL CHARACTERISTICS** ( $V_i = -11V$ ,  $I_o = 500mA$ ,  $C_i = 2.2\mu F$ ,  $C_o = 1\mu F$ ,  $T_J = 25^\circ C$  unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Output Voltage	$V_o$	-5.76	-6	-6.24	V	$V_{IN} = -11V$ , $I_o = 500mA$
		-5.7	-6	-6.3		$-8V \leq V_{IN} \leq -21V$ , $5mA \leq I_o \leq 1A$ , $T_J = 0 \sim 125^\circ C$
Line Regulation	$\Delta V_o$	-	12.5	120	mV	$-8V \leq V_{IN} \leq -25V$
		-	4	60		$-9V \leq V_{IN} \leq -13V$
Load Regulation	$\Delta V_o$	-	15	120	mV	$5mA \leq I_o \leq 1.5A$
		-	5	60		$250mA \leq I_o \leq 750mA$ , $T_J = 25^\circ C$
Quiescent Current	$I_q$	-	1.5	2	mA	
Quiescent Current Change	$\Delta I_q$	-	-	0.5	mA	$5mA \leq I_o \leq 1A$ , $T_J = 0 \sim 125^\circ C$
		-	-	1.3		$-8V \leq V_{IN} \leq -25V$ , $T_J = 0 \sim 125^\circ C$
Output Noise Voltage	$V_N$	-	150	-	$\mu V$	$10Hz \leq f \leq 100KHz$
Ripple Rejection	RR	54	60	-	dB	$-9V \leq V_{IN} \leq -19V$ , $f = 120Hz$ , $T_J = 0 \sim 125^\circ C$
Dropout Voltage	$V_D$	-	1.1	-	V	$I_o = 1A$
Peak Current	$I_{pk}$	-	2.1	-	A	
Output Voltage Drift	$\Delta V_o / \Delta T$	-	-0.4	-	mV / $^\circ C$	$I_o = 5mA$ , $T_J = 0 \sim 125^\circ C$

Note:

1. Pulse test.