

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

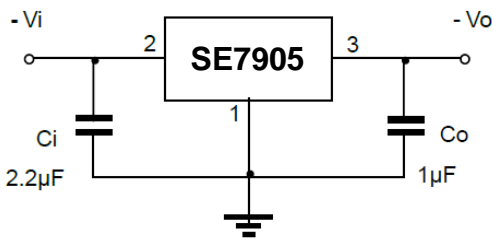
DESCRIPTION

The SE7905 of fixed-voltage monolithic integrated-circuit voltage regulators designed to complement. The SE7905 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.

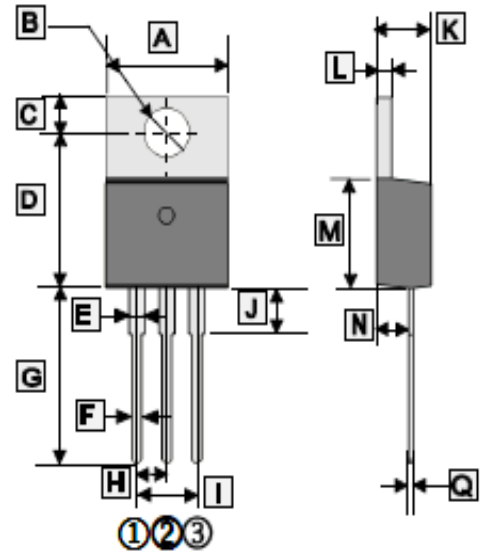
FEATURES

- 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
SE7905	Lead (Pb)-free
SE7905-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	-5	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 ($V_i = -10V$, $I_o = 500mA$, $C_i = 2.2\mu F$, $C_o = 1\mu F$, $T_J = 25^\circ C$ unless otherwise specified)

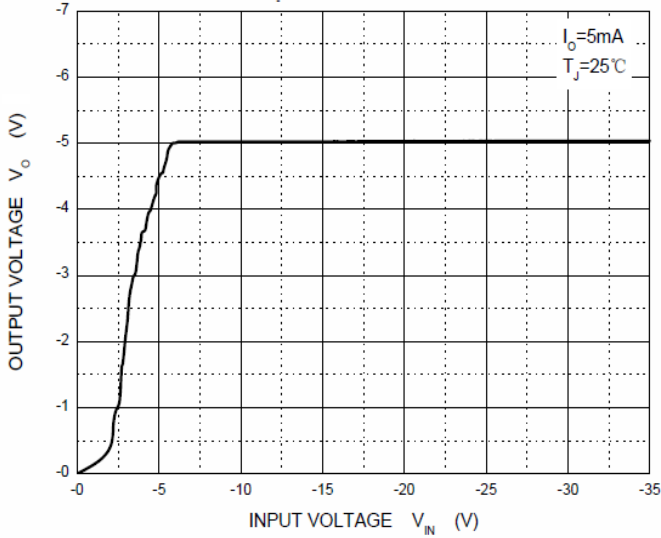
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Output Voltage	V_o	-4.8	-5	-5.2	V	$V_{IN} = -10V$, $I_o = 500mA$
		-4.75	-5	-5.25		$-7V \leq V_{IN} \leq -20V$, $5mA \leq I_o \leq 1A$, $T_J = 0 \sim 125^\circ C$
Line Regulation	ΔV_o	-	12.5	50	mV	$-7V \leq V_{IN} \leq -25V$
		-	4	15		$-8V \leq V_{IN} \leq -12V$
Load Regulation	ΔV_o	-	15	100	mV	$5mA \leq I_o \leq 1.5A$
		-	5	50		$250mA \leq I_o \leq 750mA$, $T_J = 25^\circ C$
Quiescent Current	I_q	-	1.5	2	mA	
Quiescent Current Change	ΔI_q	-	-	0.5	mA	$5mA \leq I_o \leq 1A$, $T_J = 0 \sim 125^\circ C$
		-	-	0.5		$-7V \leq V_{IN} \leq -25V$, $T_J = 0 \sim 125^\circ C$
Output Noise Voltage	V_N	-	125	-	μV	$10Hz \leq f \leq 100KHz$
Ripple Rejection	RR	54	60	-	dB	$-8V \leq V_{IN} \leq -18V$, $f = 120Hz$, $T_J = 0 \sim 125^\circ C$
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:

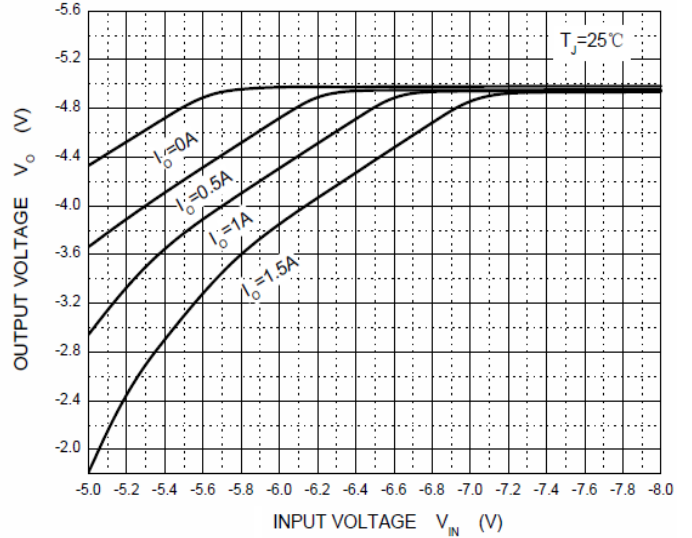
1. Pulse test.

CHARACTERISTICS CURVE

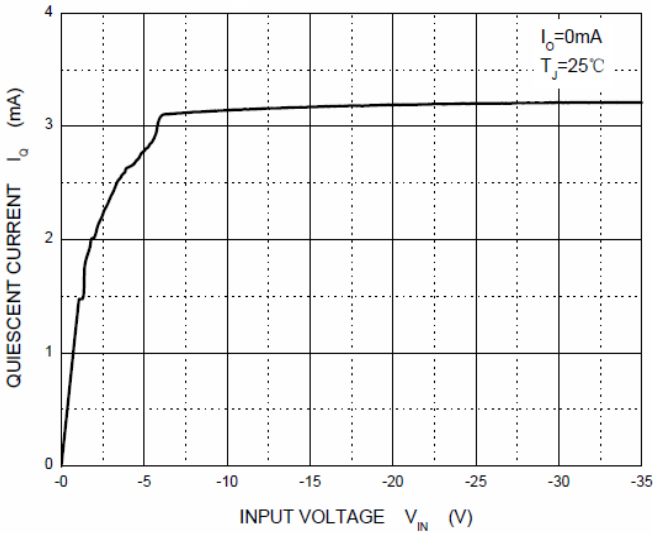
Output Characteristics



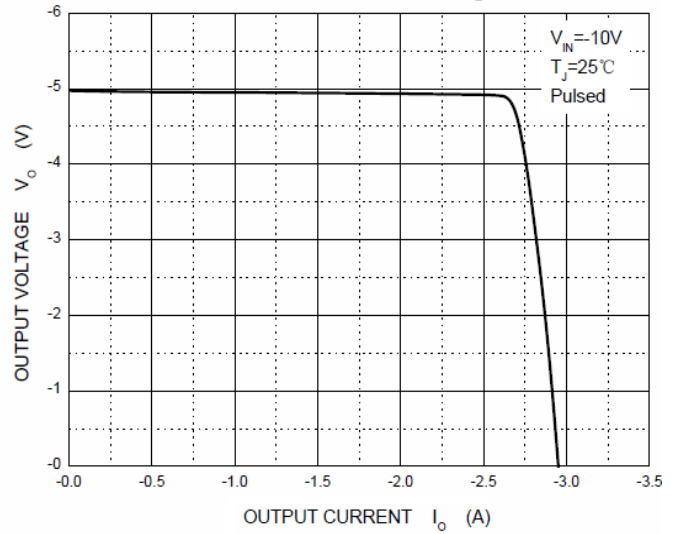
Dropout Characteristics



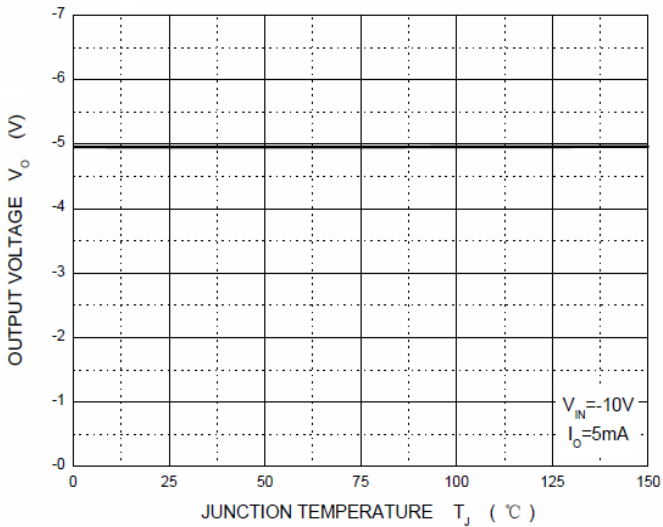
Quiescent Current



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve

