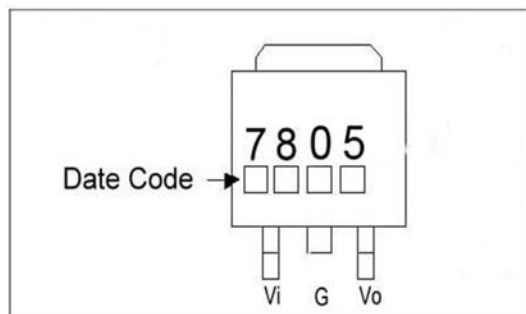


RoHS Compliant Product
A suffix of "-C" specifies halogen and lead-free

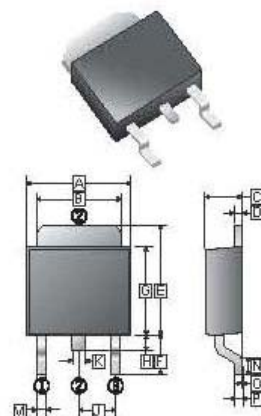
DESCRIPTION

The SJ7805-B of fixed-voltage monolithic integrated circuit voltage regulators designed for a wide range of applications. These applications include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. This regulator can deliver up to 1A of output current. The internal current limiting and thermal shutdown features of these regulators make them essentially immune to overload.

MARKING



TO-252



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.35	6.8	J	2.30	REF.
B	5.20	5.50	K	0.70	0.90
C	2.20	2.40	L	0.50	0.70
D	0.43	0.58	M	0.60	0.90
E	6.40	7.35	N	1.40	1.78
F	2.40	3.00	O	0	0.15
G	5.40	5.80	P	0.43	0.58
H	0.60	1.20			

PACKAGE INFORMATION

Package	MPQ	LeaderSize
TO-252	2.5K	13' inch

ABSOLUTE MAXIMUM RATINGS

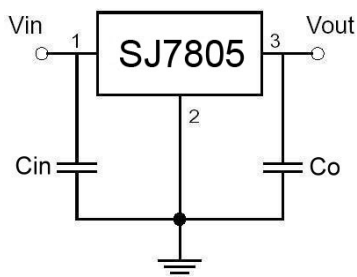
Parameter		Symbol	VALUE	UNITS
Input Voltage	5V	V_{IN}	35	V
Output Current		I_O	1	A
Operating Junction and Storage Temperature Range		T_J, T_{STG}	-55~+150	°C
Thermal Resistance Junction-Air		$R_{\theta JA}$	125	W / °C
Thermal Resistance Junction - Cases		$R_{\theta JC}$	12.5	W / °C

SJ7805-B ELECTRICAL CHARACTERISTICS

(Refer to the test circuits, $T_J=0\sim125\text{ }^{\circ}\text{C}$, $I_O=500\text{mA}$, $V_{IN}=10\text{V}$, $C_{IN}=0.33\mu\text{F}$, $C_O=0.1\mu\text{F}$ unless otherwise specified)

Symbol		Test Conditions	Min	Typ	Max	Units
V_O	B-Rank(5%)	$V_{IN}=10\text{V}$, $I_O=500\text{mA}$, $T_J=25\text{ }^{\circ}\text{C}$ $7.5\text{V} \leq V_{IN} \leq 20\text{V}$, $5\text{mA} \leq I_O \leq 1\text{A}$, $P_D \leq 15\text{W}$	4.75	5.0	5.25	V
$\Delta V_O(\text{Line Regulation})$		$7\text{V} \leq V_{IN} \leq 25\text{V}$, $I_O=500\text{mA}$, $T_J=25\text{ }^{\circ}\text{C}$	-	3	50	mV
		$8\text{V} \leq V_{IN} \leq 12\text{V}$, $I_O=500\text{mA}$, $T_J=25\text{ }^{\circ}\text{C}$	-	1	25	
$\Delta V_O(\text{Load Regulation})$		$V_{IN}=10\text{V}$, $5\text{mA} \leq I_O \leq 1\text{A}$, $T_J=25\text{ }^{\circ}\text{C}$	-	-	100	mV
		$V_{IN}=10\text{V}$, $250\text{mA} \leq I_O \leq 750\text{mA}$, $T_J=25\text{ }^{\circ}\text{C}$	-	-	50	
I_Q		$V_{IN}=10\text{V}$, $I_O=500\text{mA}$, $T_J=25\text{ }^{\circ}\text{C}$	-	-	8	mA
ΔI_Q		$V_{IN}=10\text{V}$, $5\text{mA} \leq I_O \leq 1\text{A}$	-	-	0.5	mA
		$7\text{V} \leq V_{IN} \leq 25\text{V}$, $I_O=500\text{mA}$	-	-	1.3	
V_N		$10\text{Hz} \leq f \leq 100\text{KHz}$	-	40	-	μA
RR		$8\text{V} \leq V_{IN} \leq 18\text{V}$, $f=120\text{Hz}$, $T_J=25\text{ }^{\circ}\text{C}$	-	80	-	dB
V_D		$I_O=1\text{A}$, $T_J=25\text{ }^{\circ}\text{C}$	-	2	-	V
I_{SC}		$V_{IN}=35\text{V}$, $T_J=25\text{ }^{\circ}\text{C}$	-	250	-	mA
I_{PK}		$T_J=25\text{ }^{\circ}\text{C}$	-	1.8	-	mA
$\Delta V_O / \Delta T_J$		$I_O=5\text{mA}$, $0\text{ }^{\circ}\text{C} \leq T_J \leq 25\text{ }^{\circ}\text{C}$	-	-0.6	-	$\text{mV}/^{\circ}\text{C}$

TYPICAL APPLICATION



CHARACTERISTIC CURVE

