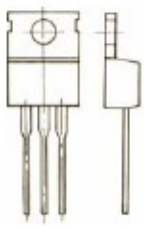
SHENZHEN HAOCHANG SEMICONDUCTOR CO.,LTD.

TO-220 Plastic-Encapsulate Voltage Regulator

7910 Three-terminal positive voltage regulator

TO-220



1. IN
2. GND
3. OUT

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FEATURES

Maximum Output current I_{OM}: 1.5 A

Output voltage V_o: -10 V

Continuous total dissipation

P_D: 2 W (T_J = 25 ℃)

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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Thermal resistance junction-air	RθJA	65	°C/W
Thermal resistance junction-cases	RθJC	5	°C/W
Operating Junction Temperature Range	T_{OPR}	0-150	°C
Storage Temperature Range	T_{STG}	-65-150	°C

ELECTRICAL CHARACTERISTICS(V_i=17V,I_o=500mA,0°C<T_J<125°C,Ci=0.33μF,Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	Vo	T_J=25°C	-9.6	-10	-10.4	V
		12.5V≤V_i≤25V, Io=5mA-1A, P≤15W	-9.5	-10	-10.5	V
Load Regulation	ΔVo	T_J=25°C, Io=5mA-1.5A		12	200	mV
		T_J=25°C, Io=250mA-750mA		4	100	mV
Line regulation	ΔVo	12.5V≤V_i≤28V, T_J=25°C		7	200	mV
		14V≤V_i≤20V, T_J=25°C		2	100	mV
Quiescent Current	Iq	T_J=25°C		4.3	8	mA
Quiescent Current Change	ΔIq	12.5V≤V_i≤28V			1	mA
	ΔIq	5mA≤I_O≤1A			0.5	mA
Output voltage drift	△Vo/△T	Io=5mA		-1		mV/°C
Output Noise Voltage	V_N	10Hz≤f≤100KHz		70		μV
Ripple Rejection	RR	13V≤V_i≤23V,f=120Hz, T_J=25°C	55	71		dB
Dropout Voltage	Vd	T_J=25°C, Io=1A		2		V
Output resistance	R_O	f=1KHz		18		mΩ
Short Circuit Current	Isc	T_J=25°C		400		mA
Peak Current	Ipk	T_J=25°C		2.2		A

TYPICAL APPLICATION