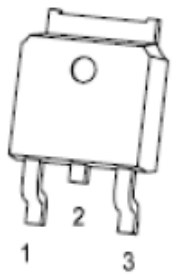
TO-252-2L Plastic-Encapsulate Voltage Regulator

CJ7905 Three-terminal negative voltage regulator

TO-252-2L



FEATURE

Maximum Output current I_{OM}: 1.5 A
Output voltage V_o: - 5V
Continuous total dissipation
P_D: 1.25 W (T_a = 25 ℃)
15 W (T_C= 25 ℃)

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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	℃/W
Thermal resistance junction-cases	$R_{\theta JC}$	6.67	℃/W
Operating Junction Temperature Range	T_{OPR}	0~+125	℃
Storage Temperature Range	T_{STG}	-55~+150	℃

ELECTRICAL CHARACTERISTICS (Vi=-10V, Io=500mA, C_i=2.2μF, C_o=1μF, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output voltage	Vo		25℃	-4.8	-5	-5.2	V
		-7V≤V_i≤-20V, Io=5mA-1A , P≤15W	0-125℃	-4.75	-5	-5.25	V
Load Regulation	ΔVo	Io=5mA-1.5A	25℃		15	100	mV
		Io=250mA-750mA	25℃		5	50	mV
Line regulation	ΔVo	-7V≤V_i≤-25V	25℃		12.5	50	mV
		-8V≤V_i≤-12V	25℃		4	15	mV
Quiescent Current	Iq		25℃		1.5	2	mA
Quiescent Current Change	ΔIq	-7V≤V_i≤-25V	0-125℃			0.5	mA
	ΔIq	5mA≤I_O≤1A	0-125℃			0.5	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25℃		125		μV
Output voltage drift	△Vo/△T	I_O=5mA	0-125℃		-0.4		mV/℃
Ripple Rejection	RR	-8V≤V_i≤-18V,f=120Hz	0-125℃	54	60		dB
Dropout Voltage	Vd	Io=1A	25℃		1.1		V
Peak Current	Ipk		25℃		2.1		A

TYPICAL APPLICATION