

7924 • THREE-TERMINAL NEGATIVE VOLTAGE REGULATOR IC

FEATURES:

- OUTPUT CURRENT IN EXCESS OF 1A;
- NO EXTERNAL COMPONENTS REQUIRED;
- INTERNAL SHORT CIRCUIT CURRENT LIMITING;
- INTERNAL THERMAL OVERLOAD PROTECTION;
- OUTPUT TRANSISTOR SAFE-AREA COMPENSATION;
- OUTPUT VOLTAGE OFFERED IN 4% TOLERANCE.

ABSOLUTE MAXIMUM RATINGS (Ta= 25° C)

Characteristic	Symbol	Norm	Unit
Input Voltage	V _{in}	V	-40
Maximum Dissipated Power(with heat sink)	P _{tot(max)}	W	15
Maximum Dissipated Power(without heat sink)	P _{tot(max)}	W	1.5
Thermal Resistance Junction to Case	O _{jC}	°C/W	5.0
Thermal Resistance, Junction to Air	O _{jA}	°C/W	65
Junction Temperature	T _j	°C	150

T_c=-45÷+70°C

ELECTRICAL CHARACTERISTICS

(V_{in}=-33V, I_o=0.5A, C_i=2.2mkF, C_o=1.0mkF, T_j=0+125°C, unless otherwise noted.)

Characteristic	Symbol	Norm			Unit
		Min	TYP	Max	
Output Voltage(T _j =25°C)	V _o	-23		-25	V
Output Voltage (5.0mA≤I _o ≤1.0A, P _o ≤15W) -27V≥V _{in} ≥-38V	V _o	-22,8		-25,2	V
Line Regulation(T _j =+25°C, I _o =0,1A) -27 V≥V _{in} ≥-38 V -30V≥V _{in} ≥-36 V (T _j =+25°C, I _o =0,5A) -27 V≥V _{in} ≥-38 V -30V≥V _{in} ≥-36 V	ΔV _v			240 120 470 240	mV
Load Regulation(T _j =+25°C) 5.0mA≤I _o ≤1.5A 0.25A≤I _o ≤0.75A	ΔV _i			480 240	mV
Quiescent Current(T _j =+25°C)	I _b			8.0	mA
Quiescent Current Change -27 V≥V _{in} ≥-38 V 5.0mA≤I _o ≤1.5 A	ΔI _b			1.0 0.5	mA
Dropout Voltage (I _o =1.0A, T _j =+25°C)	V _i -V _o		2.0		V
Average Temperature Coefficient of Output Voltage	TCV _o		1		mV/°C

