

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	Vin	V	-40
Maximum Dissipated Power(with heat sink)	Ptot(max)	W	15
Maximum Dissipated Power(without heat sink)	Ptot(max)	W	1.5
Thermal Resistance Junction to Case	OjC	°C/W	5.0
Thermal Resistance, Junction to Air	OjA	°C/W	65
Junction Temperature	Tj	°C	150

Tc=-45÷+70°C

ELECTRICAL CHARACTERISTICS

(Vin=-33V,Io=0.5A,Ci=2.2mkF,Co=1.0mkF,Tj=0+125°C, unless otherwise noted.)

Characteristic	Symbol	Norm			Unit
		Min	TYP	Max	
Output Voltage(Tj=25°C)	Vo	-23		-25	V
Output Voltage (5.0mA≤Io≤1.0A,Po≤15W) -27V≥Vin≥-38V	Vo	-22,8		-25,2	V
Line Regulation(Tj=+25°C, Io=0,1A) -27 V≥Vin≥-38 V -30V≥Vin≥-36 V (Tj=+25°C, Io=0,5A) -27 V≥Vin≥-38 V -30V≥Vin≥-36 V	ΔVv			240 120 470 240	mV
Load Regulation(Tj=+25°C) 5.0mA≤Io≤1.5A 0.25A≤Io≤0.75A	ΔVi			480 240	mV
Quiescent Current(Tj=+25°C)	Ib			8.0	mA
Quiescent Current Change -27 V≥Vin≥-38 V 5.0mA≤Io≤1.5 A	ΔIb			1.0 0.5	mA
Dropout Voltage (Io=1.0A,Tj=+25°C)	Vi-Vo		2.0		V
Average Temperature Coefficient of Output Voltage	TCVo		1		mV/°C

