

TECHNICAL DATA
DATA SHEET 4021, REV. –

LOW DROP NEGATIVE 5V 1.0 AMP REGULATOR

FEATURES:

- ISOLATED HERMETIC PACKAGE
- SIMILAR to INDUSTRY TYPE LM2990-5

MAXIMUM RATINGS

All ratings are at $T_A = 25^\circ\text{C}$ unless otherwise specified.

Parameter	Conditions	Typical	Limit	Units
Input to Output Voltage Differential	-	-	-26.0	Vdc
Storage Temperature Range	-	-	-65 to +150	$^\circ\text{C}$
Lead Temperature	Soldering, 10 seconds	-	+300	$^\circ\text{C}$
Power Dissipation (P_D)	-	-	Internally Limited	W
Maximum Thermal Resistance Junction to Case (θ_{JC})	-	-	3.5	$^\circ\text{C/W}$
Maximum Junction Temperature (T_J)	-	-	-65 to +150	$^\circ\text{C}$
Ambient Operating Temperature Range (T_A)	Recommended Conditions	-	-55 to +125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Min	Limit	Units
Output Voltage (V_O)	$V_{IN} = -10\text{V}$, $5\text{ mA} < I_{OUT} < 1.0\text{A}$ $T_A = +25^\circ\text{C}$	-5.10	-4.90	V
Line Regulation (V_{RLINE}) ΔV_{OUT}	$-6\text{V} \leq V_{IN} \leq 26\text{V}$; $I_{OUT} = 5\text{ mA}$	± 4	± 40	mV
Load Regulation (V_{RLOAD}) ΔV_{OUT}	$50\text{ mA} \leq I_{OUT} \leq 1\text{A}$, $V_{IN} = -10\text{V}$	± 1	± 40	mV
Drop Out Voltage V_{DO}	$I_O = 0.1\text{A}$ $I_O = 1.0\text{A}$	0.1 0.6	0.3 1.0	V
Quiescent Current ΔI_Q	$5\text{ mA} < I_{OUT} < 1.0\text{A}$	1	5	mA
Current Limit I_{CL}	$V_{IN} = -10\text{V}$, $R_L = 1\Omega$	1.5 1.8 (typ)	-	A
Temperature Stability $\Delta V_{OUT} / \Delta t$	$-55^\circ\text{C} \leq T_J \leq +125^\circ\text{C}$	-	1.5	%
Ripple Rejection ($\Delta V_{IN} / \Delta V_{OUT}$)	$V_{IN} = -10\text{V}$, $f = 1\text{ KHz}$ $V_{ripple} = 1V_{rms}$, $I_{OUT} = 5\text{ mA}$	50 58 (typ)	-	dB
Output Noise Voltage	10 Hz ~ 100 KHz, $I_{OUT} = 5\text{ mA}$	250 (typ)	750	mV
Long Term Stability ($\Delta V_{OUT} / \Delta t$)	$T_A = 25^\circ\text{C}$, $t = 1,000$	-	2000	ppm

