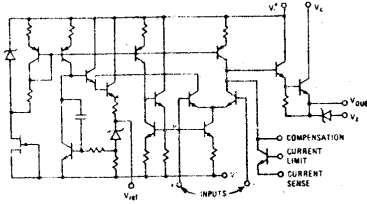


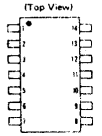
是可调输出空系列稳压器，输出电压能在2~3.7V的范围内任意设计。
封装形式有三种：DIP（NJM723D）、扁平型（NSM723M）
和罐装型（NJM723T）。

- 输出电压范围2~3.7V；
- 内含电流限制电路；
- 内含温度补偿型基准电源

等效电路



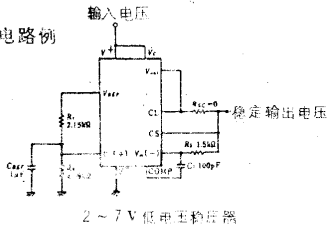
端子接法



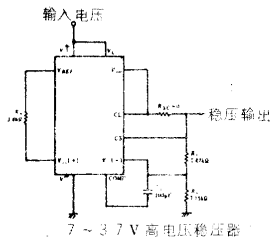
端子号	功能	端子号	功能
1	NC	8	NC
2(10)	电流限制	9	Vz
3(1)	电流检出	10(6)	Vout
4(2)	- 输入	11(7)	Vc
5(3)	+ 输入	12(8)	V+
6(4)	VREF	13(9)	COMP
7(5)	V-	14	NC

注：O内为金属封装的引脚编号

应用电路例



2~7V 低电压稳压器



7~3.7V 高电压稳压器

极限参数 (T_a = 25°C)

V _i	40V
V _o	40V
V _{id}	±5V
I _o	150mA
I _{ref}	15mA
P _T	700mW (D型)
	500mW (T型)
	700mW (M型 基板实装)
T _{opt}	-20~+75°C
T _{stg}	-40~+125°C

电特性参数 (V_i = V_C = 12V, V₋ = 0, V_O = 5V, R_{sc} = 0, C₁ = 100PF, C_{REF} = 0, T_a = 25°C)

符号	测定条件	参数值			单位
		最小	典型	最大	
V _i		9.5		40	V
V _o		2		37	V
ΔV _o /ΔV _i	V _i = 12~15V		0.01	0.1	%
	V _i = 12~40V		0.1	0.5	
ΔV _o /I _o	I _o = 1~50mA		0.03	0.2	%
I _b	V _i = 30V, I _o = 0, V _o = V _{ref}		2.3	4	mA
N _o	BW = 100Hz ~ 10kHz	C _{REF} = 0		100	μVrms
		C _{REF} = 5μF		2.5	
RR	f = 50Hz ~ 10kHz	C _{REF} = 0		74	dB
		C _{REF} = 5μF		86	
V _{is}		3		38	V
I _{oq} (Δ)	R _{sc} = 10Ω, I _o = 0		65		mA
γV _o	T _v = -20~75°C		0.003	0.018	%/°C
常用电源电流	V _i = 30V, V _o = V _{ref} , I _o = 0		2.3	4	mA

■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V ⁺ /V ⁻	40	V
Dropout Voltage	ΔV_{IO}	40	V
Differential Input Voltage	V _{IN} (diff)	±5	V
Output Current	I _O	150	mA
Power Dissipation	P _D	(DIP8) 700	mW
		(DMP8) 700(note)	mW
		(SSOP8) 450(note)	mW
Current from V _{REF}	I _{REF} (V _{REF})	15	mA
Operating Temperature Range	T _{opr}	-20~+75	°C
Storage Temperature Range	T _{stg}	-40~+125	°C

(note) At on PC board

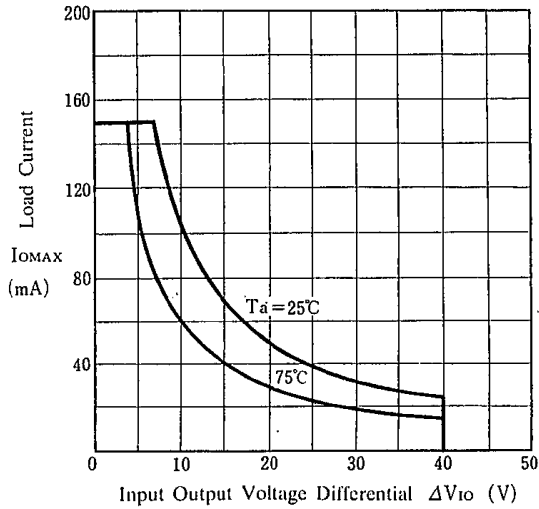
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, V⁺=V_C=12V, V⁻=0V, V_O=5V, R_{SC}=0, C_I=100pF, C_{REF}=0, I_L=1mA)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Line Regulation	$\Delta V_O - V_{IN}$	V _{IN} =12~15V V _{IN} =12~40V	—	0.01 0.1	0.1 0.5	%V _{OUT} %V _{OUT}
Load Regulation	$\Delta V_O - I_O$	I _O =1~50mA	—	0.03	0.2	%V _{OUT}
Ripple Rejection	RR	f=50~10kHz, C _{REF} =0	—	74	—	dB
		f=50~10kHz, C _{REF} =5μF	—	86	—	dB
Average Temperature Coefficient of Output Voltage	$\Delta V_O / \Delta T$	-20 ≤ Ta ≤ 75°C	—	0.003	0.018	%/°C
Short Circuit Current Limit	I _{CL}	R _{sc} =10Ω, V _{OUT} =0	—	65	—	mA
Reference Voltage	V _{REF}		6.8	7.15	7.5	V
Output Noise Voltage	V _{NO}	BW=100Hz~10kHz, C _{RF} =0	—	100	—	μV _{rms}
		BW=100Hz~10kHz, C _{RF} =5μF	—	2.5	—	μV _{rms}
Dropout Voltage	V _{IO}		3.0	—	38	V
Standby Current Drain	I _{STDBY}	I _I =0, V _{IN} =30V, V _O =V _{REF}	—	2.3	4.0	mA
Input Voltage Range	V _{IN}		9.5	—	40	V
Output Voltage Range	V _O		2.0	—	37	V

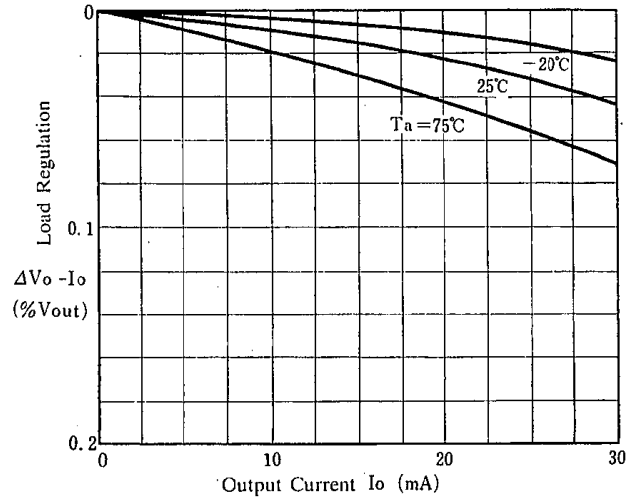
NJM723

TYPICAL APPLICATION

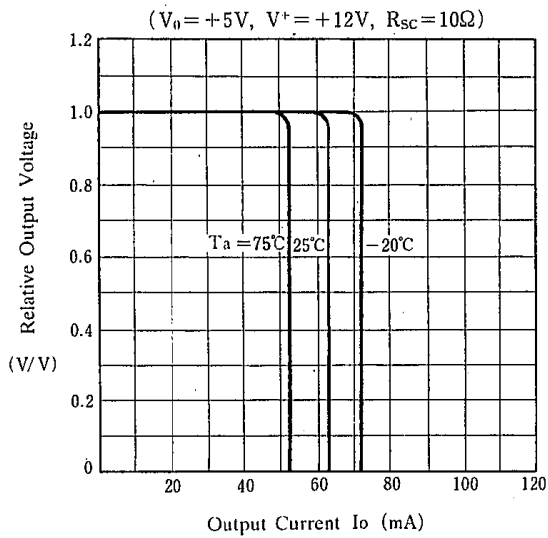
Maximum Load Current vs. Input Output Voltage Differential



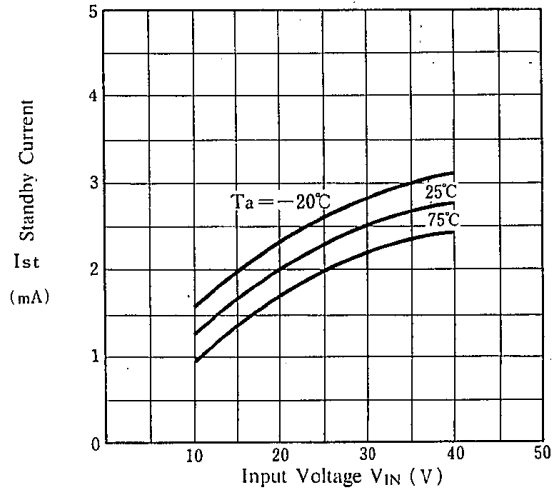
Load Regulation vs. Output Current
($V_0 = +5V, V^+ = +12V, R_{SC} = 10\Omega$)



Relative Output Voltage vs. Output Current



Standby Current vs. Input Voltage
($V_0 = V_{REF}, I_0 = 0mA$)



6

TYPICAL CHARACTERISTICS

