78M05

+5V Voltage regulator

主要特点

- ◆ 输出电流 0.5A
- ◆ 输出电压 5V
- ◆ 过热保护、短路保护
- ◆ 输出晶体管 SOA 保护

RoHS COMPLIANT

TO-252

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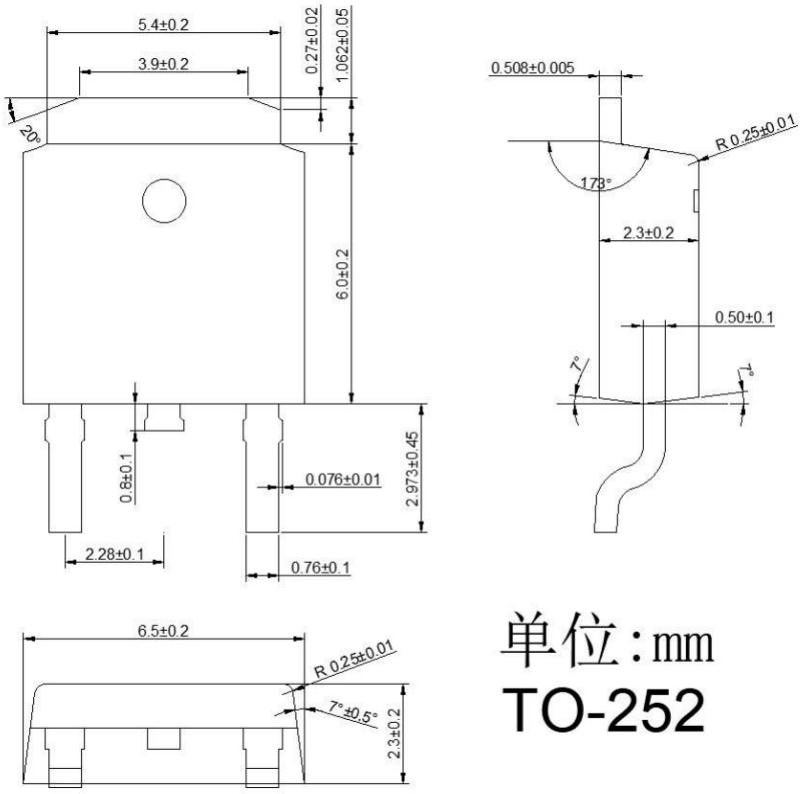
极限值

- ➢ VI--输入电压：36V
- ➢ TOPR--工作结温范围：0~150℃
- ➢ TSTG--储存温度范围：-55~150℃

1-INPUT

2-GND

3-OUTPUT



单位：mm

TO-252

极限参数

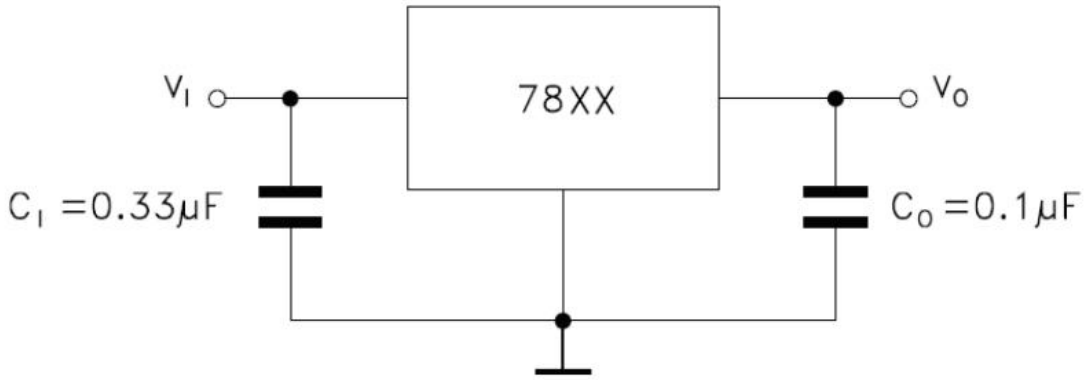
参数名称	符号	额定值	单位
输入电压	V_{IN}	36	V
最大输电流	I_{out}	500	mA
工作结温	T_j	0~+150	℃
贮存温度	T_{stg}	-55~+150	℃
功耗	P_d	1.5	W

电参数

参数符号	符 号 说 明	最小值	典型值	最大值	单 位	测 试 条 件
V_0	输出电压	4.8	5.0	5.2	V	T_J=25℃
		4.75	5.0	5.25		I_0=250mA V_I=10V
ΔV_0	电压调整率*		5.0	50	mV	I_0=250mA，7.0V≤V_I≤11V
ΔV_0	负载调整率*		-40	40	mV	V_I=10V，5.0mA≤I_0≤250mA
			-80	80		V_I=10V，5.0mA≤I_0≤500mA
I_Q	静态电流		1	5	mA	V_I=10V I_0=5mA
ΔI_Q	静态电流变化率	-0.4		0.4	mA	V_I=7V，5.0mA≤I_0≤250mA
		-0.7		0.7		7.0V≤V_I≤26V，I_0=50mA
I_{CC}	电源电流			9	mA	V_I=36V I_0=0mA

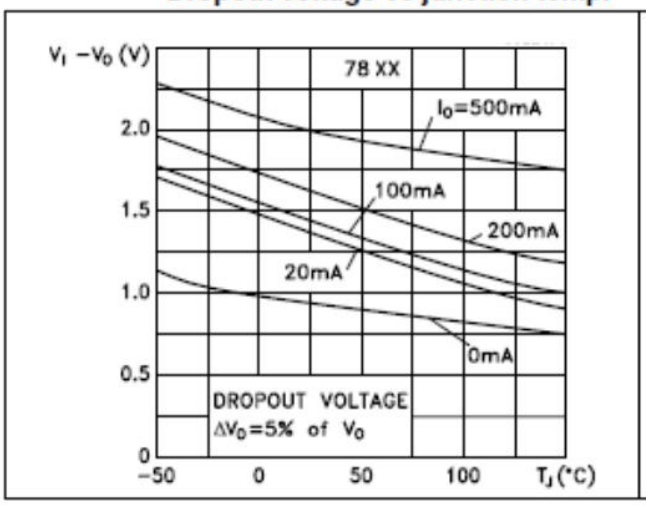
（参见测试电路，除非另有说明，0℃≤T_J≤125℃，I_O=500mA，V_I=10V，C_I=0.33μF，C_O=0.1μF）

测试原理图

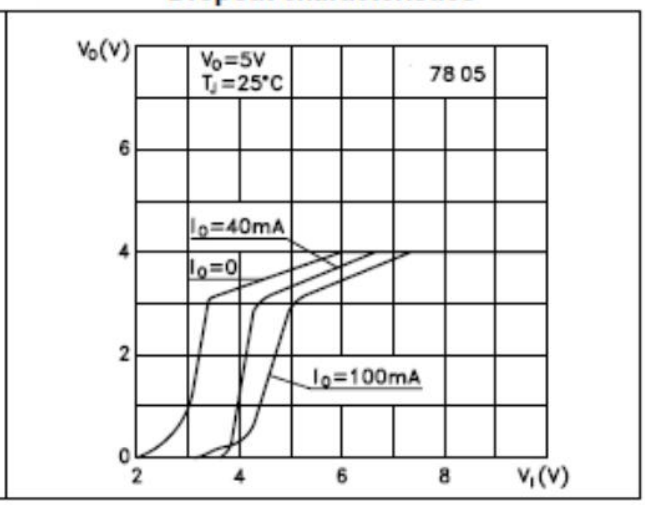


曲线图

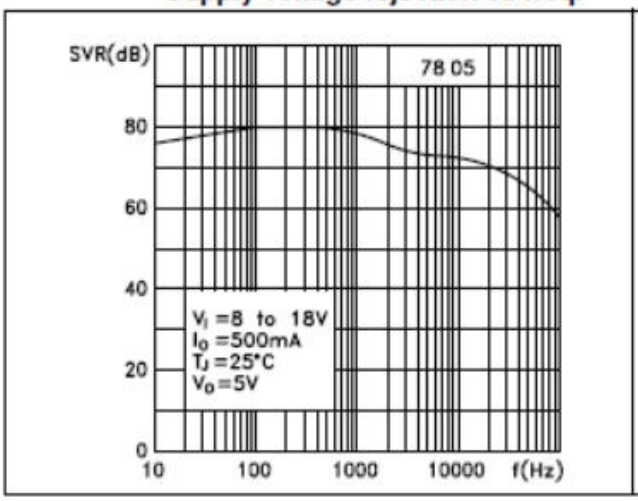
Dropout voltage vs junction temp.



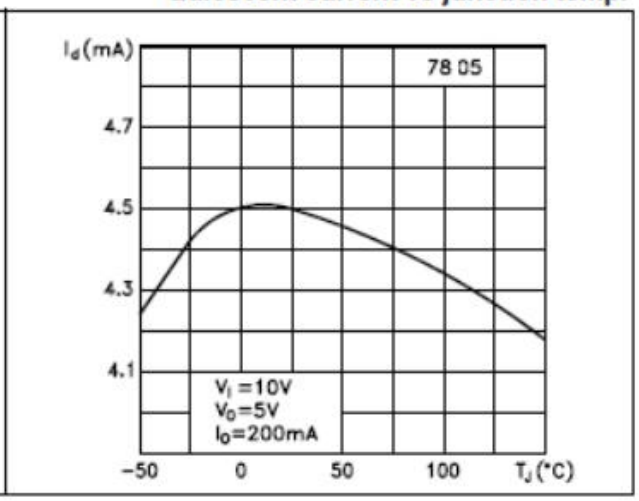
Dropout characteristics



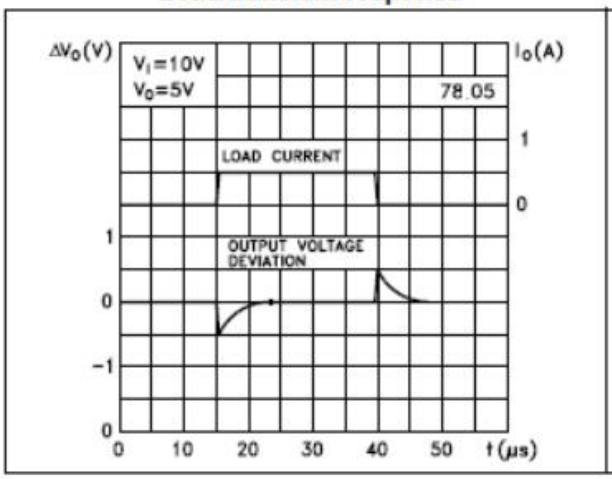
Supply voltage rejection vs freq.



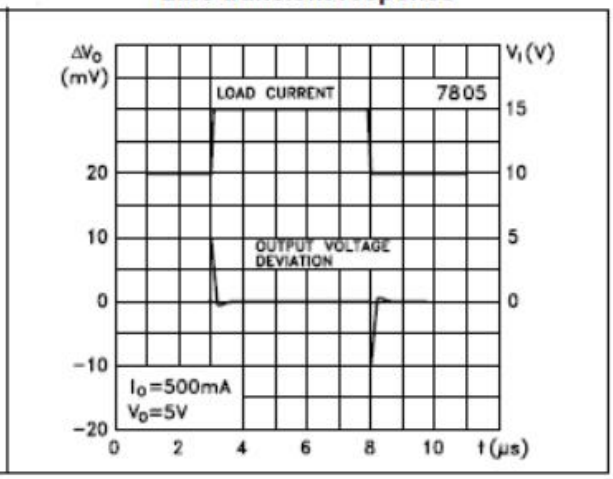
Quiescent current vs junction temp.



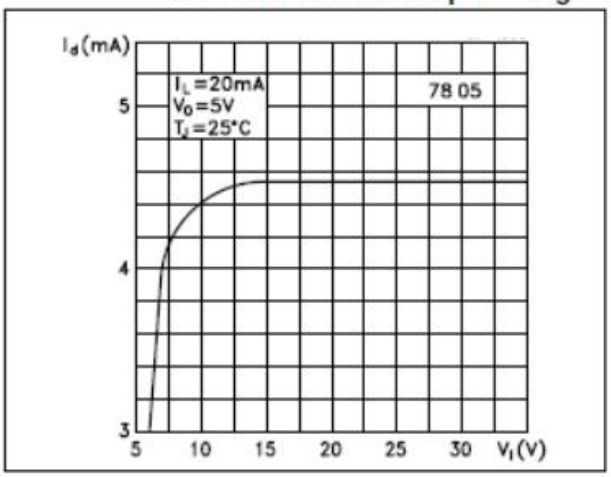
Load transient response



Line transient response



Quiescent current vs input voltage



Dropout voltage vs junction temp.