



DC COMPONENTS CO., LTD.

INTEGRATED CIRCUIT

DE7806
DE7806A

TECHNICAL SPECIFICATIONS OF 3-TERMINAL POSITIVE VOLTAGE REGULATOR

Description

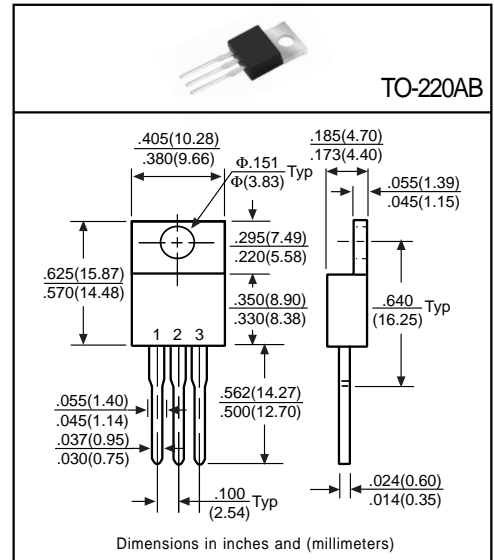
These regulators employ internal current limiting and thermal shutdown, making them essentially indestructible. They can deliver over 1A output current with adequate heatsinking. They are intended as fixed voltage regulators in a wide range of applications including local, on-card regulation for elimination of noise and distribution problems associated with single-point regulation.

Pinning

- 1 = Input
- 2 = Ground
- 3 = Output

Absolute Maximum Ratings (T_A=25°C)

Characteristic	Symbol	Rating	Unit
Input Voltage	V _I	35	V
Total Power Dissipation	P _D	Internal limit	W
Operating Temperature Range	T _{opr}	0 to +125	°C
Maximum Junction Temperature	T _J	125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C
Lead Temperature(Soldering 10 Sec.)	T _L	230	°C



Electrical Characteristics

(V_{in}=11V, I_{out}=500mA, 0°C ≤ T_J ≤ 125°C, unless otherwise specified)

Characteristic		Symbol	Min	Typ	Max	Unit	Test Conditions
Output Voltage	DE7806A	V _O	5.82	6.00	6.18	V	T _J =25°C P _D ≤ 15W, 5mA ≤ I _o ≤ 1A
	DE7806		5.75	6.00	6.25		
	DE7806A		5.82	6.00	6.18		
	DE7806		5.75	6.00	6.25		
Line Regulation	DE7806A	Reg _{line}	-	4.0	60	mV	T _J =25°C, 8V ≤ V _{in} ≤ 21V T _J =25°C, 9V ≤ V _{in} ≤ 21V
	DE7806		-	5.0	120		
	DE7806A		-	1.6	25		
	DE7806		-	2.0	60		
Load Regulation	DE7806A	Reg _{load}	-	-	100	mV	T _J =25°C, 5mA ≤ I _o ≤ 1.5A T _J =25°C, 250mA ≤ I _o ≤ 750mA
	DE7806		-	-	120		
	DE7806A		-	-	50		
	DE7806		-	-	60		
Input Bias Current		I _{IB}	-	5.5	8.0	mA	T _J =25°C, I _o ≤ 1A
Input Bias Current Change		ΔI _{IB}	-	-	0.5 1.3	mA	5mA ≤ I _o ≤ 1A 9V ≤ V _{in} ≤ 25V
Output Noise Voltage	DE7806A	V _n	-	-	200	μV	T _A =25°C, 10Hz ≤ f ≤ 100KHz
	DE7806		-	-	300		
Ripple Rejection	DE7806A	RR	-	68	-	dB	9V ≤ V _{in} ≤ 19V, f=120Hz
	DE7806		62	73	-		
Dropout Voltage	DE7806A	V _D	-	2.0	-	V	T _J =25°C, I _o =1A
	DE7806		-	2.5	-		
Short Circuit Current		I _{sc}	-	1.5	-	A	T _J =25°C
Peak Output Current		I _{max}	1.7	-	-	A	T _J =25°C
Average T _c of V _{out}		ΔV _O / ΔT	-	-0.8	-	mV / °C	0°C ≤ T _J ≤ +125°C, I _o =5mA