



DC COMPONENTS CO., LTD.

INTEGRATED CIRCUIT

DE7808

DE7808A

TECHNICAL SPECIFICATIONS OF 3-TERMINAL POSITIVE VOLTAGE REGULATOR

Description

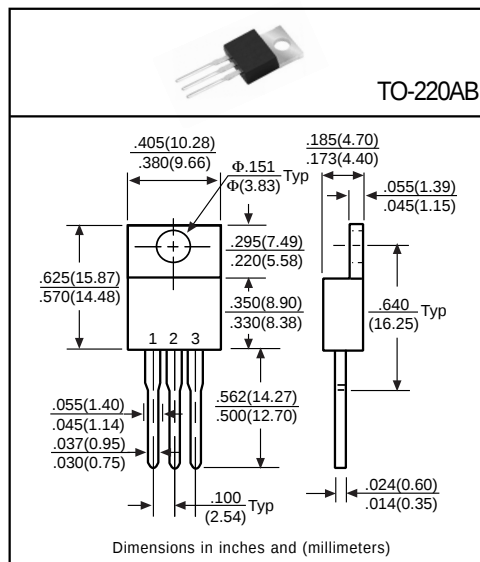
These regulators employ internal current limiting and thermal shutdown, making them essentially indestructible. They can deliver over 1A output current with adequate heatsinking. They are intended as fixed voltage regulators in a wide range of applications including local, on-card regulation for elimination 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}=14V, I_{out}=500mA, 0°C≤T_J≤125°C, unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Output Voltage	DE7808A	7.76	8.00	8.24	V	T _J =25°C P _D ≤15W, 5mA≤I _o ≤1A
	DE7808	7.70	8.00	8.30		
	DE7808A	7.76	8.00	8.24		
	DE7808	7.60	8.00	8.40		
Line Regulation	DE7808A	-	5.0	80	mV	T _J =25°C, 10.5V≤V _{in} ≤25V T _J =25°C, 11.5V≤V _{in} ≤17V
	DE7808	-	5.0	160		
	DE7808A	-	5.0	40		
	DE7808	-	2.0	80		
Load Regulation	DE7808A	-	-	100	mV	T _J =25°C, 5mA≤I _o ≤1.5A T _J =25°C, 250mA≤I _o ≤750mA
	DE7808	-	-	160		
	DE7808A	-	-	50		
	DE7808	-	-	80		
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	mA	5mA≤I _o ≤1A
		-	-	1.3		10.5V≤V _{in} ≤25V
Output Noise Voltage	DE7808A	-	-	200	μV	T _A =25°C, 10Hz≤f≤100KHz
	DE7808	-	-	300		
Ripple Rejection	DE7808A	-	68	-	dB	11.5V≤V _{in} ≤21.5V, f=120Hz
	DE7808	62	73	-		
Dropout Voltage	DE7808A	-	2.0	-	V	T _J =25°C, I _o =1A
	DE7808	-	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