



DC COMPONENTS CO., LTD.

INTEGRATED CIRCUIT

DE7809

DE7809A

TECHNICAL SPECIFICATIONS OF 3-TERMINAL POSITIVE VOLTAGE REGULATOR

Description

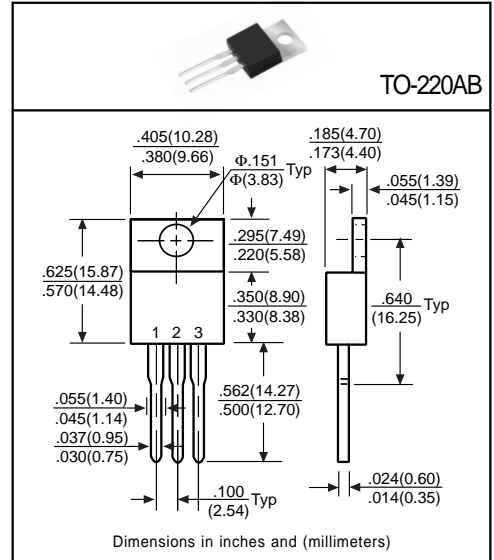
These regulators employ internal current limiting and thermal shutdown, making them essentially indestructible. They can deliver over 1A output current with adequate heatsinking. They are intended as fixed voltage regulators in a wide range of applications including local, on-card regulation for elimination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

Pinning

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

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Input Voltage	Vi	35	V
Total Power Dissipation	Pd	Internal limit	W
Operating Temperature Range	ToPr	0 to +125	°C
Maximum Junction Temperature	TJ	125	°C
Storage Temperature Range	TSTG	-55 to +150	°C
Lead Temperature(Soldering 10 Sec.)	TL	230	°C



Electrical Characteristics

(Vin=15V, Iout=500mA, 0°C ≤ TJ ≤ 125°C, unless otherwise specified)

Characteristic		Symbol	Min	Typ	Max	Unit	Test Conditions
Output Voltage	DE7809A	Vo	8.23	9.00	9.27	V	TJ=25°C Pd ≤ 15W, 5mA ≤ Io ≤ 1A
	DE7809		8.64	9.00	9.36		
	DE7809A		8.73	9.00	9.27		
	DE7809		8.55	9.00	9.45		
Line Regulation	DE7809A	Regline	-	6.0	90	mV	TJ=25°C, 11.5V ≤ Vin ≤ 25V TJ=25°C, 12V ≤ Vin ≤ 25V
	DE7809		-	4.0	100		
	DE7809A		-	2.0	45		
	DE7809		-	2.0	50		
Load Regulation	DE7809A	Regload	-	-	100	mV	TJ=25°C, 5mA ≤ Io ≤ 1.5A TJ=25°C, 250mA ≤ Io ≤ 750mA
	DE7809		-	-	180		
	DE7809A		-	-	50		
	DE7809		-	-	90		
Input Bias Current		IIB	-	5.5	8.0	mA	TJ=25°C, Io ≤ 1A
Input Bias Current Change		ΔIIB	-	-	0.5 1.3	mA	5mA ≤ Io ≤ 1A 11.5V ≤ Vin ≤ 26V
Output Noise Voltage	DE7809A	Vn	-	-	200	μV	TA=25°C, 10Hz ≤ f ≤ 100KHz
	DE7809		-	-	300		
Ripple Rejection	DE7809A	RR	-	68	-	dB	13V ≤ Vin ≤ 23V, f=120Hz
	DE7809		62	73	-		
Dropout Voltage	DE7809A	Vd	-	2.0	-	V	TJ=25°C, Io=1A
	DE7809		-	2.5	-		
Short Circuit Current		Isc	-	1.5	-	A	TJ=25°C
Peak Output Current		Imax	1.7	-	-	A	TJ=25°C
Average Tc of Vout		ΔVo / ΔT	-	-0.8	-	mV / °C	0°C ≤ TJ ≤ +125°C, Io=5mA