



# DC COMPONENTS CO., LTD.

## INTEGRATED CIRCUIT

DE7805  
DE7805A

### TECHNICAL SPECIFICATIONS OF 3-TERMINAL POSITIVE VOLTAGE REGULATOR

#### Description

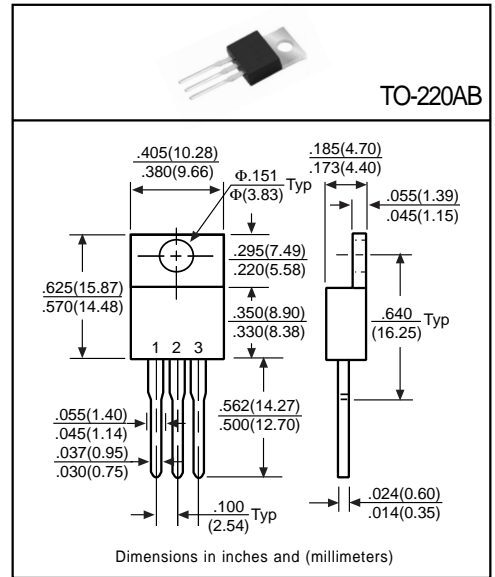
These regulators employ internal current limiting and thermal shutdown, making them essentially indestructible. They can deliver over 1A output current with adequate heatsinking. They are intended as fixed voltage regulators in a wide range of applications including local, on-card regulation for elimination 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=10V, Iout=500mA, 0°C ≤ TJ ≤ 125°C, unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions	
Output Voltage	DE7805A	Vo	4.85	5.00	5.15	V	TJ=25°C PD ≤ 15W, 5mA ≤ Io ≤ 1A
	DE7805		4.80	5.00	5.20		
	DE7805A		4.85	5.00	5.15		
	DE7805		4.75	5.00	5.25		
Line Regulation	DE7805A	Regline	-	4.0	50	mV	TJ=25°C, 7V ≤ Vin ≤ 25V TJ=25°C, 8V ≤ Vin ≤ 25V
	DE7805		-	4.0	100		
	DE7805A		-	1.6	25		
	DE7805		-	1.6	50		
Load Regulation	Regload	-	-	100	mV	TJ=25°C, 5mA ≤ Io ≤ 1.5A TJ=25°C, 250mA ≤ Io ≤ 750mA	
		-	-	50			
Input Bias Current	IIB	-	5.5	8.0	mA	TJ=25°C, Io ≤ 1A	
Input Bias Current Change	ΔIIB	-	-	0.5	mA	5mA ≤ Io ≤ 1A 7V ≤ Vin ≤ 25V	
		-	-	1.3			
Output Noise Voltage	DE7805A	Vn	-	40	200	μV	TA=25°C, 10Hz ≤ f ≤ 100KHz
	DE7805		-	100	300		
Ripple Rejection	DE7805A	RR	-	68	-	dB	8V ≤ Vin ≤ 18V, f=120Hz
	DE7805		62	73	-		
Dropout Voltage	DE7805A	Vd	-	2.0	-	V	TJ=25°C, Io=1A
	DE7805		-	2.5	-		
Short Circuit Current	Isc	-	1.5	-	A	TJ=25°C	
Peak Output Current	I <sub>max</sub>	1.7	-	-	A	TJ=25°C	
Average Tc of Vout	ΔVo / ΔT	-	-0.8	-	mV / °C	0°C ≤ TJ ≤ +125°C, Io=5mA	