



DC COMPONENTS CO., LTD.

INTEGRATED CIRCUIT

DE7815

DE7815A

TECHNICAL SPECIFICATIONS OF 3-TERMINAL POSITIVE VOLTAGE REGULATOR

Description

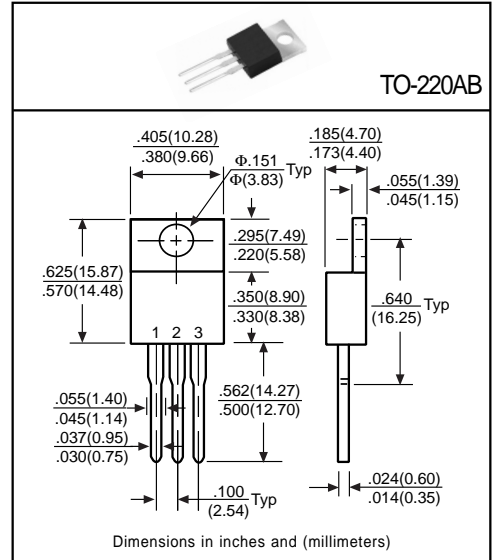
These regulators employ internal current limiting and thermal shutdown, making them essentially indestructible. They can deliver over 1A output current with adequate heatsinking. They are intended as fixed voltage regulators in a wide range of applications including local, on-card regulation for elimination 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=23V, Iout=500mA, 0°C ≤ TJ ≤ 125°C, unless otherwise specified)

Characteristic		Symbol	Min	Typ	Max	Unit	Test Conditions
Output Voltage	DE7815A	Vo	14.45	15.00	15.45	V	TJ=25°C Pd ≤ 15W, 5mA ≤ Io ≤ 1A
	DE7815		14.40	15.00	15.60		
	DE7815A		14.45	15.00	15.45		
	DE7815		14.25	15.00	15.60		
Line Regulation	DE7815A	Regline	-	-	150	mV	TJ=25°C, 17.5V ≤ Vin ≤ 30V TJ=25°C, 20V ≤ Vin ≤ 26V
	DE7815		-	11	300		
	DE7815A		-	-	75		
	DE7815		-	3.0	150		
Load Regulation	DE7815A	Regload	-	-	150	mV	TJ=25°C, 5mA ≤ Io ≤ 1.5A TJ=25°C, 250mA ≤ Io ≤ 750mA
	DE7815		-	-	300		
	DE7815A		-	-	75		
	DE7815		-	-	150		
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 17.5V ≤ Vin ≤ 30V
Output Noise Voltage	DE7815A	Vn	-	-	200	μV	TA=25°C, 10Hz ≤ f ≤ 100KHz
	DE7815		-	-	300		
Ripple Rejection	DE7815A	RR	-	68	-	dB	18.5V ≤ Vin ≤ 28.5V, f=120Hz
	DE7815		62	73	-		
Dropout Voltage	DE7815A	Vd	-	2.0	-	V	TJ=25°C, Io=1A
	DE7815		-	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