



DC COMPONENTS CO., LTD.
INTEGRATED CIRCUIT

DE7815
DE7815A

TECHNICAL SPECIFICATIONS OF 3-TERMINAL POSITIVE VOLTAGE REGULATOR

Description

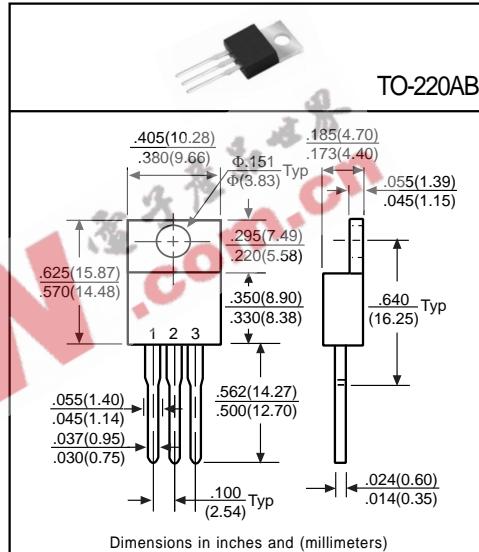
These regulators employ internal current limiting and thermal shutdown, making them essentially indestructible. They can deliver over 1A output current with adequate heatsinking. They are intended as fixed voltage regulators in a wide range of applications including local, on-card regulation for elimination 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	14.45	15.00	15.45	V	TJ=25°C
	DE7815	14.40	15.00	15.60		Pd≤15W, 5mA≤Io≤1A
	DE7815A	14.45	15.00	15.45		
	DE7815	14.25	15.00	15.60		
Line Regulation	DE7815A	-	-	150	mV	TJ=25°C, 17.5V≤Vin≤30V
	DE7815	-	11	300		
	DE7815A	-	-	75		TJ=25°C, 20V≤Vin≤26V
	DE7815	-	3.0	150		
Load Regulation	DE7815A	-	-	150	mV	TJ=25°C, 5mA≤Io≤1.5A
	DE7815	-	-	300		
	DE7815A	-	-	75		TJ=25°C, 250mA≤Io≤750mA
	DE7815	-	-	150		
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
	ΔIib	-	-	1.3		17.5V≤Vin≤30V
Output Noise Voltage	DE7815A	-	-	200	μV	Ta=25°C, 10Hz≤f≤100KHz
	DE7815	-	-	300		
Ripple Rejection	DE7815A	-	68	-	dB	18.5V≤Vin≤28.5V, f=120Hz
	DE7815	62	73	-		
Dropout Voltage	DE7815A	-	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