

DC COMPONENTS CO., LTD.

INTEGRATED CIRCUIT

DE7818

DE7818A

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

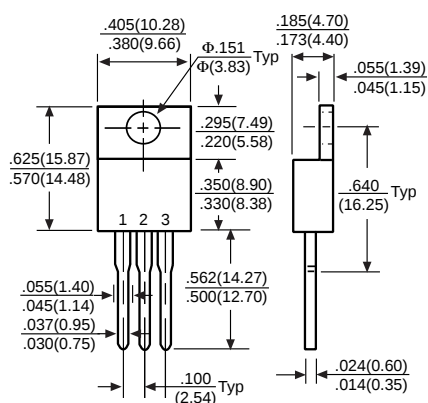
- 1 = Input
2 = Ground
3 = Output

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



TO-220AB



Dimensions in inches and (millimeters)

Electrical Characteristics

($V_{in}=27V$, $I_{out}=500mA$, $0^{\circ}C \leq T_J \leq 125^{\circ}C$, unless otherwise specified)

Characteristic		Symbol	Min	Typ	Max	Unit	Test Conditions
Output Voltage	DE7818A	V _O	17.46	18.00	18.54	V	T _J =25°C
	DE7818		17.28	18.00	18.72		P _D ≤15W, 5mA≤I _O ≤1A
	DE7818A		17.46	18.00	18.54		
	DE7818		17.10	18.00	18.90		
Line Regulation		Reg _{line}	-	15	360	mV	T _J =25°C, 21V≤V _{IN} ≤33V
			-	-	180		T _J =25°C, 24V≤V _{IN} ≤30V
Load Regulation		Reg _{load}	-	-	360	mV	T _J =25°C, 5mA≤I _O ≤1.5A
			-	5.0	180		T _J =25°C, 250mA≤I _O ≤750mA
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		21V≤V _{IN} ≤33V
Output Noise Voltage		V _n	-	-	110	μV	T _A =25°C, 10Hz≤f≤100KHz
Ripple Rejection		RR	53	69	-	dB	28V≤V _{IN} ≤38V, f=120Hz
Dropout Voltage	DE7818A	V _D	-	2.0	-	V	T _J =25°C, I _O =1A
	DE7818		-	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	-	-1.0	-	mV / °C	0°C≤T _J ≤+125°C, I _O =5mA