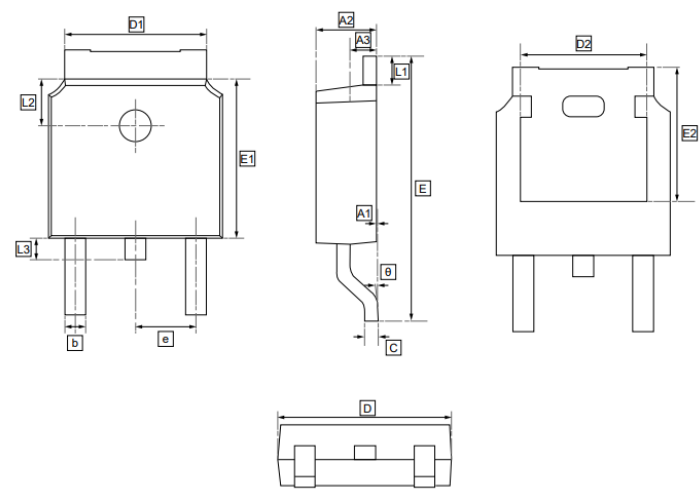


Adjustable Voltage Regulator

Primary characteristics		
Parameter	Value	Unit
Output voltage	4.8~5.2	V
Output current	1.2	A

Features

- Pb-free and RoHS compliant
- Short circuit protection
- Thermal overload protection
- Output transition SOA protection

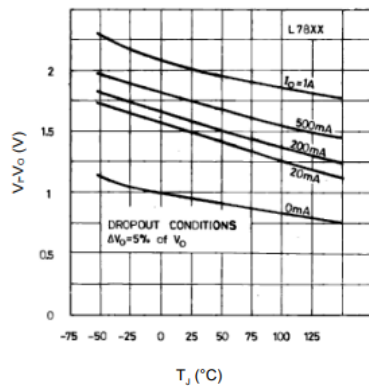
Case dimensions																
																
TO-252																
Unit mm	A1	A2	A3	b	c	D	D1	D2	E	E1	E2	e	L1	L2	L3	θ
MIN	0.0	2.18	0.9	0.65	0.46	6.35	4.95	4.32	9.4	5.97	5.21	2.286	0.89	1.7	0.6	0
MAX	0.13	2.39	1.1	0.85	0.61	6.73	5.46	4.90	10.41	6.22	5.38	BSC	1.27	1.9	1.0	8

Absolute maximum ratings (T _c =25°C)				
Parameter	Symbol	Rating	Unit	
Input voltage	V _{IN}	35	V	
		40		
Power dissipation	P _O	Internally limited		
Operating temperature	T _{OPR}	-40 ~ +125	°C	
Storage temperature	T _{STG}	-65 ~ +150	°C	
Thermal resistance junction case	R _{thJC}	8	°C/W	
Thermal resistance junction ambient	R _{thJA}	100	°C/W	

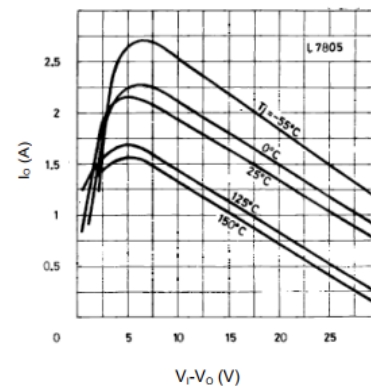
Electrical characteristics						
-40°C < T _J < +125°C, I _O UT=500mA, C _I =0.33μF, C _O =0.1μF, V _{IN} =10.0V unless otherwise specified						
Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Output voltage	V _O	T _J =25°C	4.8	5	5.2	V
		I _O =5mA~1A, P _D ≤15W, V _{IN} =8~20V	4.75	5	5.25	
Line regulation ¹⁾	ΔV _O	V _{IN} =7~25V, T _J = 25°C	-	-	100	mV
		V _{IN} =8~12V, T _J = 25°C	-	-	50	
Load regulation ¹⁾	ΔV _O	I _O =5mA~1.2A, T _J = 25°C	-	-	100	mV
		I _O =250mA~750mA, T _J = 25°C	-	-	50	
Quiescent current	I _Q	T _J = 25°C	-	-	6	mA
Quiescent current change	ΔI _Q	I _O =5mA~1A	-	-	0.5	mA
		V _{IN} =8~25V	-	-	0.8	
Quiescent current change	ΔV _O /ΔT	I _O =5mA	-	0.6	-	mV/°C
Short Circuit Current	I _{SC}	T _J = 25°C, V _{IN} =35V	-	0.75	-	A

Typical characteristics

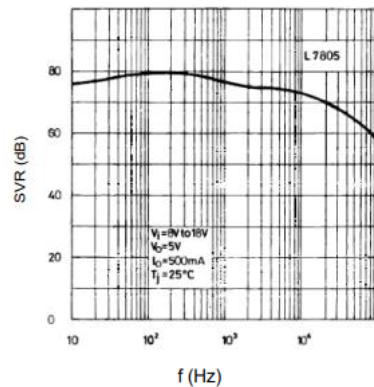
Dropout voltage vs. Junction temperature



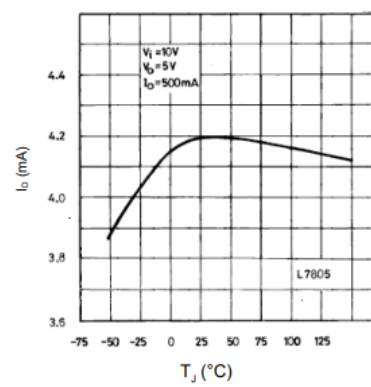
Peak output current vs. Input/Output differential voltage



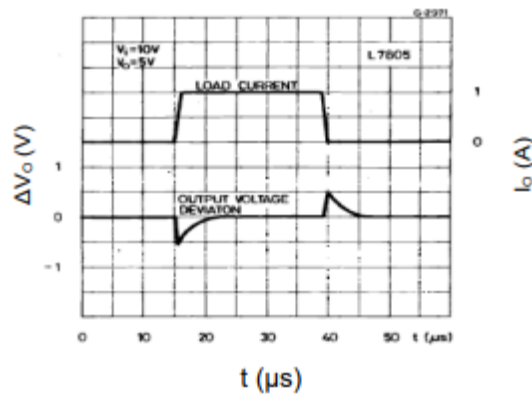
Supply voltage rejection vs. Frequency



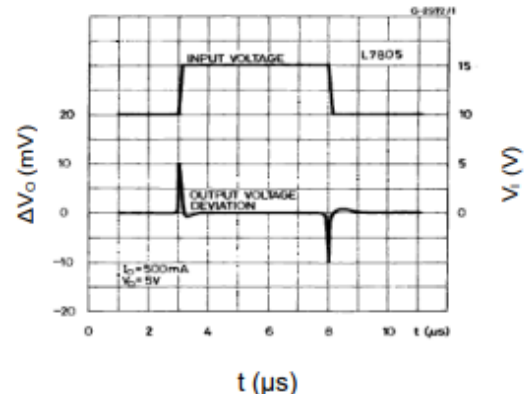
Quiescent current vs. Junction temperature



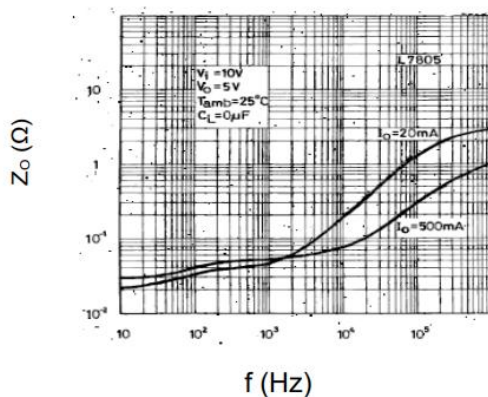
Load transient response



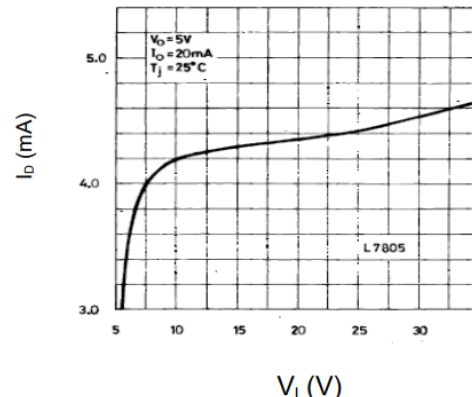
Line transient response

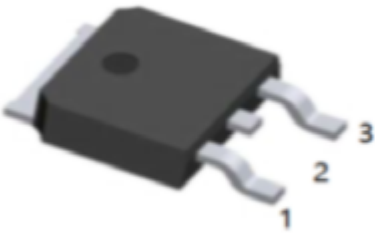
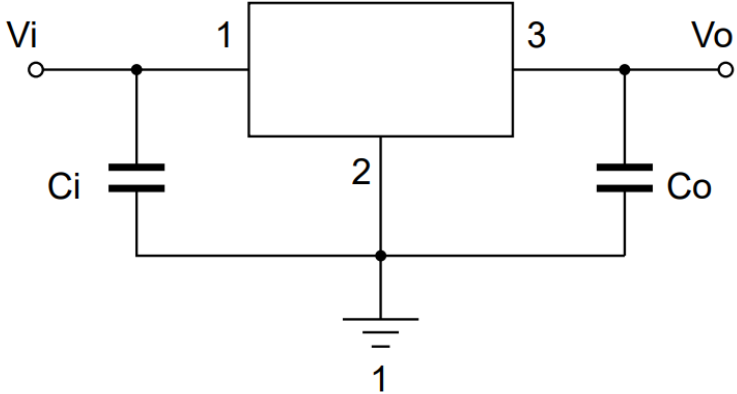


Output impedance vs. Frequency



Quiescent current vs. Input voltage



Pin configuration	Block diagram
 1-Input, 2-Ground, 3-Output	

Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
L7805CDT	TO-252	2500pcs/reel	---

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