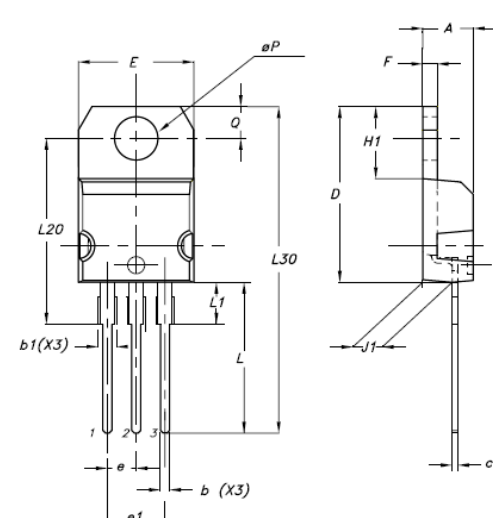


Adjustable Voltage Regulator

Primary characteristics		
Parameter	Value	Unit
Output voltage	11.4 ~ 12.6	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-220											
Unit	A	b	b1	c	D	E	e	e1	F	L	L30
mm	4.40 ±0.20	0.61 ±0.27	1.15 ±0.55	0.49 ±0.21	15.25 ±0.5	10.0 ±0.4	2.4 ±0.3	4.95 ±0.2	1.23 ±0.1	13.0 +1.0	28.9

Absolute maximum ratings			
Parameter	Symbol	Rating	Unit
Typical output voltage	V_o	12	V
Output current	I_o	Internally limited	
Operating temperature	T_{OPR}	-40 ~ +105	°C
Storage Temperature	T_{STG}	-60 ~ +150	°C

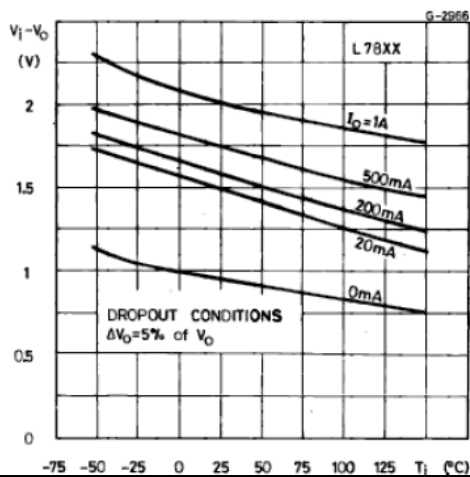
Electrical characteristics

$V_{IN}-V_{OUT}=5.0V$, $I_{OUT}=500mA$, $I_{MAX}=1.5A$ and $P_{MAX}=20W$, unless otherwise specified

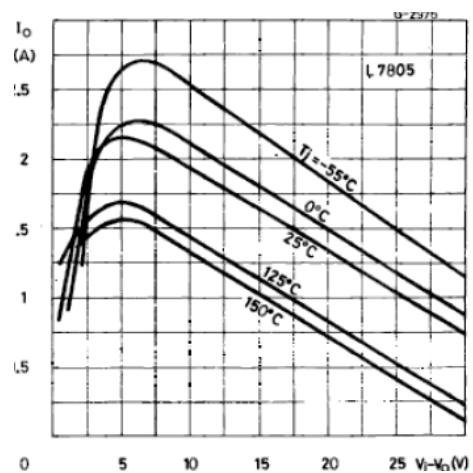
Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Line regulation	ΔV_{OUT}	$V_I=16V$ to $22V$	-	-	120	mV
Load regulation	ΔV_{OUT}	$T_J = 25^\circ C$ $I_O = 250mA$ to $750mA$	-	-	120	mV
Output voltage drift	$\Delta V/\Delta T$	$I_{OUT}=5.0mA$	-	1.5	-	mV/ $^\circ C$
Short Circuit Current	$I_{O(MIN)}$	$V_{IN}-V_{OUT}=40V$	-	-	10	mA
Maximum output current	I_{sc}	$T_J = 25^\circ C$; $V_I = 35V$	-	0.35	-	A

Typical characteristics

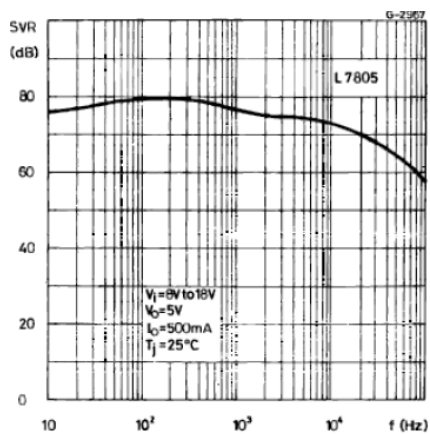
Dropout Voltage vs Junction temperature



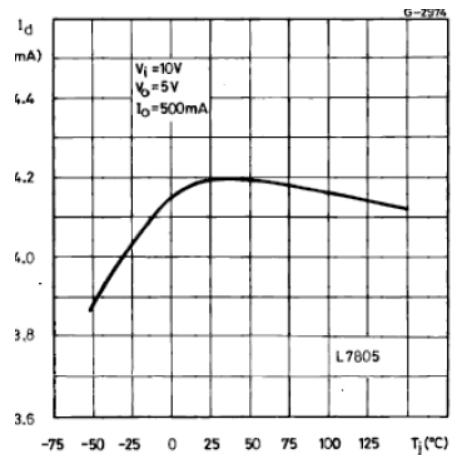
Peak Output Current vs Input/output differential Voltage



Supply voltage rejection vs frequency temperature



Quiescent current vs Junction



Typical characteristics

Figure 5: Output Voltage vs Junction Temperature

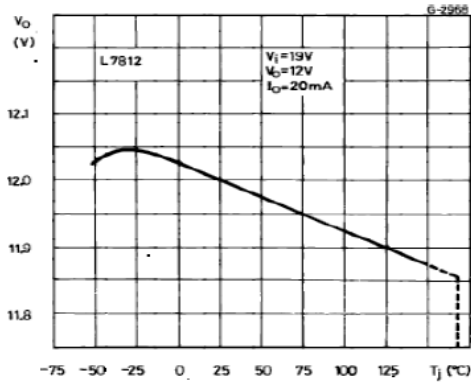


Figure 6: Load Transient Response

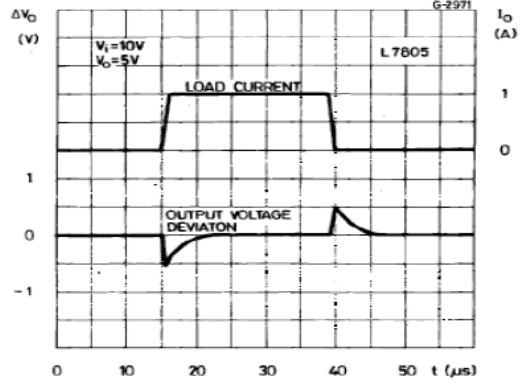


Figure 7: Output Impedance vs Frequency

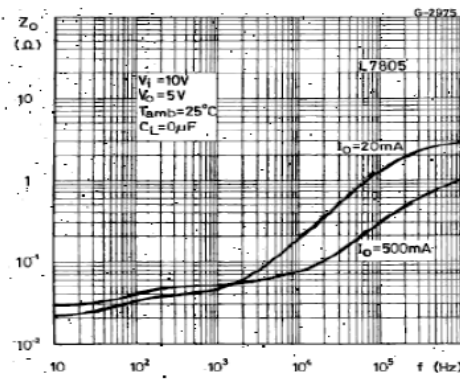


Figure 8: Line Transient Response

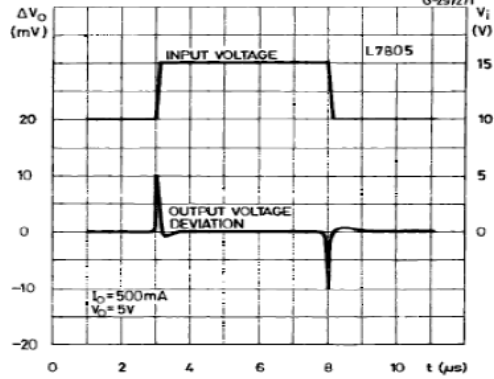
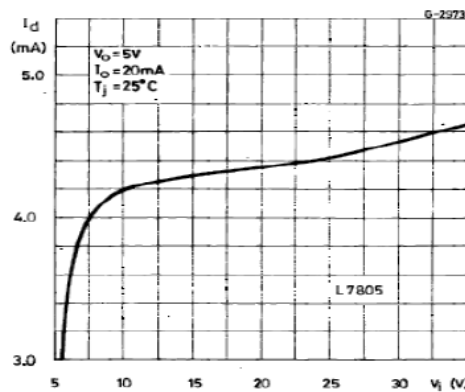


Figure 9: Quiescent Current vs Input Voltage



Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
L7812CV	TO-220	1000	---

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