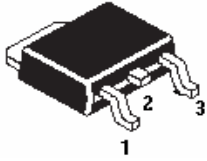


**3-TERMINAL POSITIVE VOLTAGE REGULATOR**

**CL7808DT**

**TO-252 (DPAK)  
Plastic Package**



Pin: 1 Input  
2 Ground  
3 Output

The voltages available allow these Regulators to be used in Logic Systems, Instrumentation, Hi-Fi Audio Circuits and other Solid State Electronic Equipment

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

DESCRIPTION	SYMBOL	VALUE	UNIT
Input Voltage	V <sub>IN</sub>	35 40	V
Power Dissipation	P <sub>D</sub>	5	W
Operating Junction Temperature Range	T <sub>j</sub>	+150	°C
Storage Temperature Range	T <sub>stg</sub>	- 65 to +150	°C

**THERMAL RESISTANCE**

Junction to Ambient in free air	R <sub>th(j-a)</sub>	92	°C/W
Junction to Case	R <sub>th(j-c)</sub>	5.0	°C/W

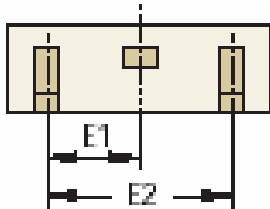
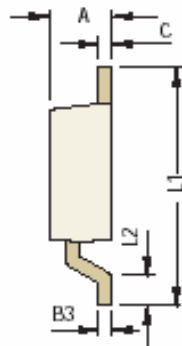
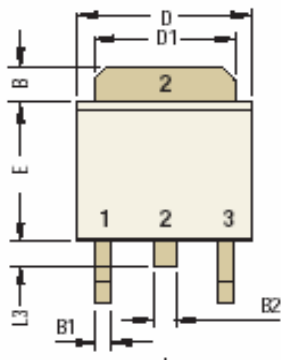
**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless specified otherwise)**

V<sub>IN</sub>=15V, I<sub>O</sub>=100mA, T<sub>a</sub>=25°C

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Output Voltage	V <sub>O</sub>	I <sub>O</sub> =5mA ~ 1.5A V <sub>IN</sub> =10.5 ~ 23V, P <sub>D</sub> 15W	7.7		8.3	V
Line Regulation	R <sub>EGV</sub>	V <sub>IN</sub> =10.5 ~ 25V			80	mV
Load Regulation	R <sub>EGL</sub>	I <sub>O</sub> =5mA ~ 1.5A			80	mV
Quiescent Current	I <sub>Q</sub>				8.0	mA
Quiescent Current Change	I <sub>Q</sub>	V <sub>IN</sub> =10.5 ~ 25V			1.0	mA
		I <sub>O</sub> =5mA ~ 1A			0.5	mA
Input Voltage	V <sub>IN</sub>		10.5		25	V
Ripple Rejection Ratio	R <sub>R</sub>	V <sub>IN</sub> =11.5 ~ 21.5V, f=120Hz	58			dB
Max Output Current	I <sub>OM</sub>	T <sub>J</sub> =25°C		2.2		A
Output Voltage Drift	V <sub>T</sub>	I <sub>O</sub> =5mA, T <sub>J</sub> =0 ~ 125°C		- 0.4		mV/°C
Output Noise Voltage	V <sub>NO</sub>	f=10Hz ~ 100KHz		10		μV
Short Circuit Current Limit	I <sub>SC</sub>	T <sub>J</sub> =25°C		2.0		A

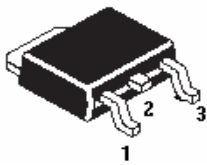
<b>MARKING</b>	<b>CL</b>
	<b>7808DT</b>
	<b>XY MX</b>
<b>XY= Date Code</b>	

Package TO-252 (DPAK)



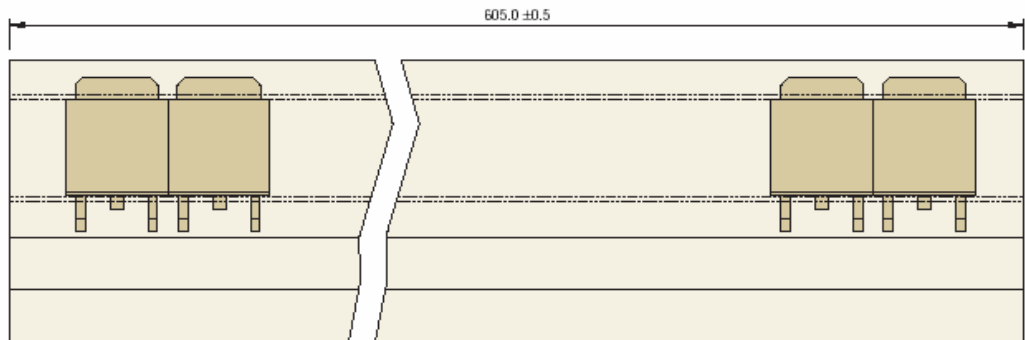
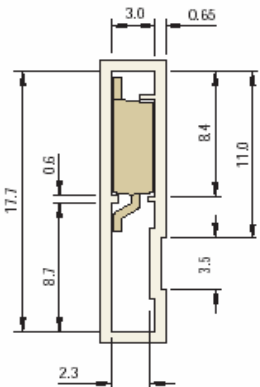
DIM	Min	max
A	2.20	2.40
B	1.30	1.50
B1	0.55	0.65
B2	0.75	0.85
B3	0.46	0.58
C	0.46	0.58
D	6.40	6.60
D1	5.20	5.40
E	5.40	5.60
E1	2.25	2.35
E2	4.50	4.70
L1	9.25	9.75
L2	0.50	
L3	0.90	1.10

All Dimensions are in mm



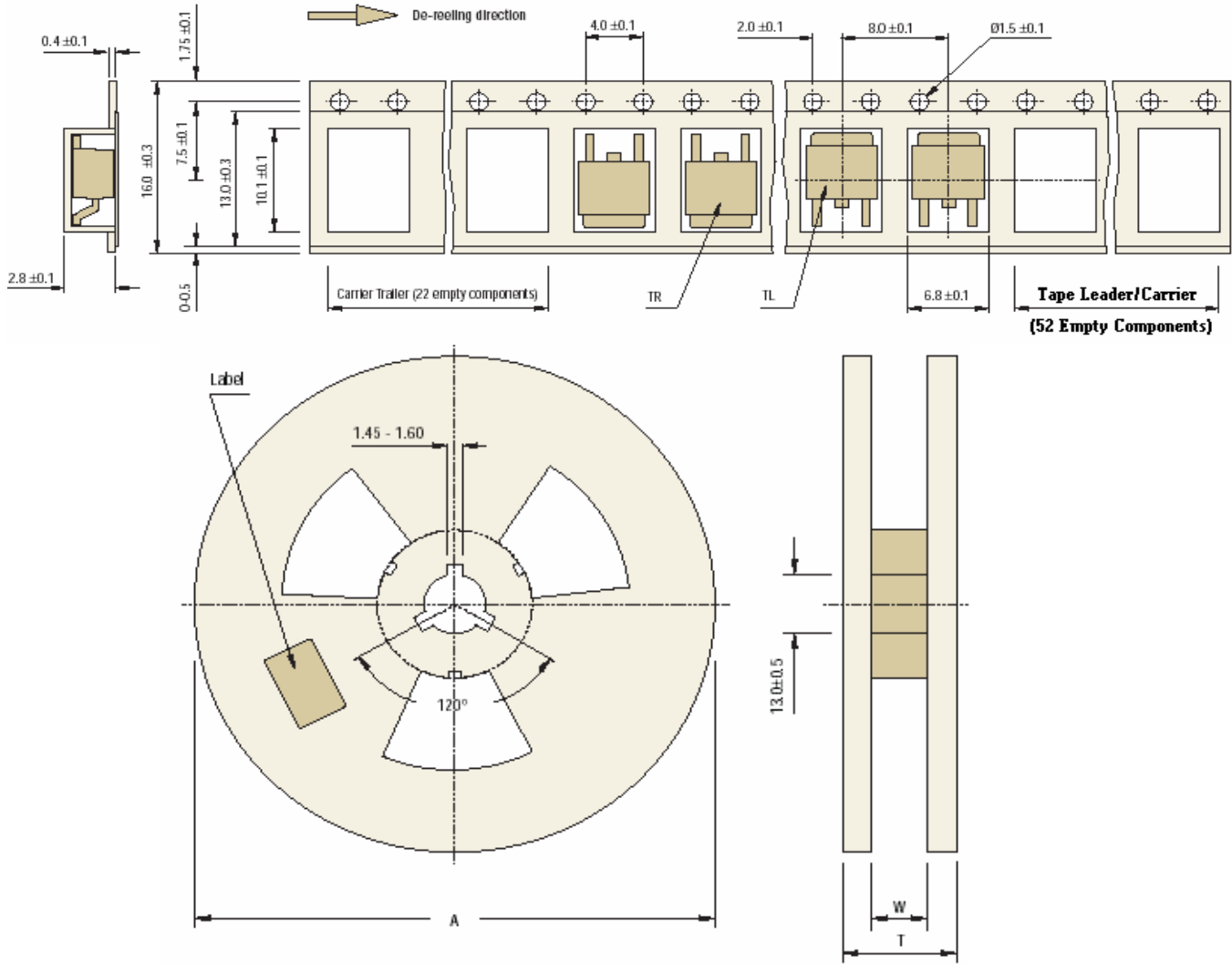
Pin: 1 Input  
2 Ground  
3 Output

TO-252 (DPAK) Tube Packing



Qty: 80 pcs/Tube

TO-252 (DPAK) Tape and Reel Specification



Reel Specifications

Package	Tape Width	Reel Dia. A - Max	Devices Per Reel and MOQ	Inside Thickness W	Reel Thickness T - max
TO-252 (DPAK)	16	330	2,500	17.5 ± 1.5	24.0

All Dimensions are in mm

Packaging Information

Package/ Case Type	Packaging Type	Std. Packing Qty
TO-252 (DPAK)	Tube	1,600
TO-252 (DPAK)	T & R	2,500

T & R: Tape and Reel  
Tube : 80 pcs/Tube

### **Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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