

**/ Descriptions**

TO-252 Voltage Regulator in a TO-252 Plastic Package.

**/ Features**

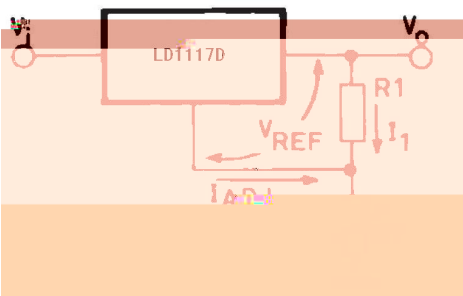
800mA, 8<: \$H(' '

High efficiency, Low dropout voltage(1V TYP.)output current up to 800mA, internal current and thermal limit, Qualified to AEC-Q100 Standards for High Reliability, HF Product.

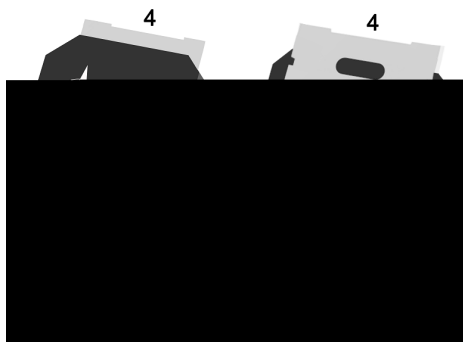
**/ Applications**

Voltage Regulator, Meet the stringent requirements of automotive applications.

**/ Equivalent Circuit or Application Circuit**



**/ Pinning**



PIN1 GND/ADJ      PIN 2,4 OUT      PIN 3 IN

**/ Marking**

See Marking Instructions.

**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Input voltage	V <sub>I</sub>	15	V
Thermal Resistance Junction-case	R <sub>JC</sub>	8	/W
Storage temperature range	T <sub>stg</sub>	-40 150	

**/ Electrical Characteristics(Ta=25 )**

Parameter	Symbol	Type	Test Conditions	Min	Typ	Max	Unit		
Reference Voltage	V <sub>ref</sub>	BRLD1117DQ- Adj	Vin-Vo=2V T <sub>j</sub> =25 I <sub>o</sub> =10mA	1.225	1.25	1.275	V		
			10mA I <sub>o</sub> 800mA 1.4V (Vin-Vo) 10V	1.225	1.25	1.275			
Output Voltage	V <sub>o</sub>	BRLD1117DQ-1.2	Vin=3.2V T <sub>j</sub> =25 I <sub>o</sub> =10mA	1.176	1.2	1.224	V		
			10mA I <sub>o</sub> 800mA, 3V Vin 8V	1.176	1.2	1.224			
		BRLD1117DQ-1.8	Vin=3.8V T <sub>j</sub> =25 I <sub>o</sub> =10mA	1.764	1.8	1.836	V		
			0 I <sub>o</sub> 800mA, 3.3V Vin 8V	1.764	1.8	1.836			
		BRLD1117DQ-2.5	Vin=4.5V T <sub>j</sub> =25 I <sub>o</sub> =10mA	2.45	2.5	2.55	V		
			0 I <sub>o</sub> 800mA, 3.9V Vin 10V	2.45	2.5	2.55			
		BRLD1117DQ-3.3	Vin=5.3V T <sub>j</sub> =25 I <sub>o</sub> =10mA	3.234	3.3	3.366	V		
			0 I <sub>o</sub> 800mA, 4.75V Vin 10V	3.234	3.3	3.366			
		BRLD1117DQ-5.0	Vin=7V T <sub>j</sub> =25 I <sub>o</sub> =10mA	4.9	5	5.1	V		
			0 I <sub>o</sub> 800mA, 6.5V Vin 15V	4.9	5	5.1			
		Load Regulation	V <sub>o</sub>	BRLD1117DQ-Adj	Vin-Vo=3V 10mA I <sub>o</sub> 800mA			30	mV
				BRLD1117DQ-1.2	Vin=3V 10mA I <sub>o</sub> 800mA			30	mV
BRLD1117DQ-1.8	Vin=3.3V 0mA I <sub>o</sub> 800mA					30	mV		
BRLD1117DQ-2.5	Vin=3.9V 0mA I <sub>o</sub> 800mA					30	mV		
BRLD1117DQ-3.3	Vin=4.75V 0mA I <sub>o</sub> 800mA					30	mV		
BRLD1117DQ-5.0	Vin=6.5V 0mA I <sub>o</sub> 800mA					30	mV		

Parameter	Symbol	Type	Test Conditions	Min	Typ	Max	Unit
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# BRLD1117DQ

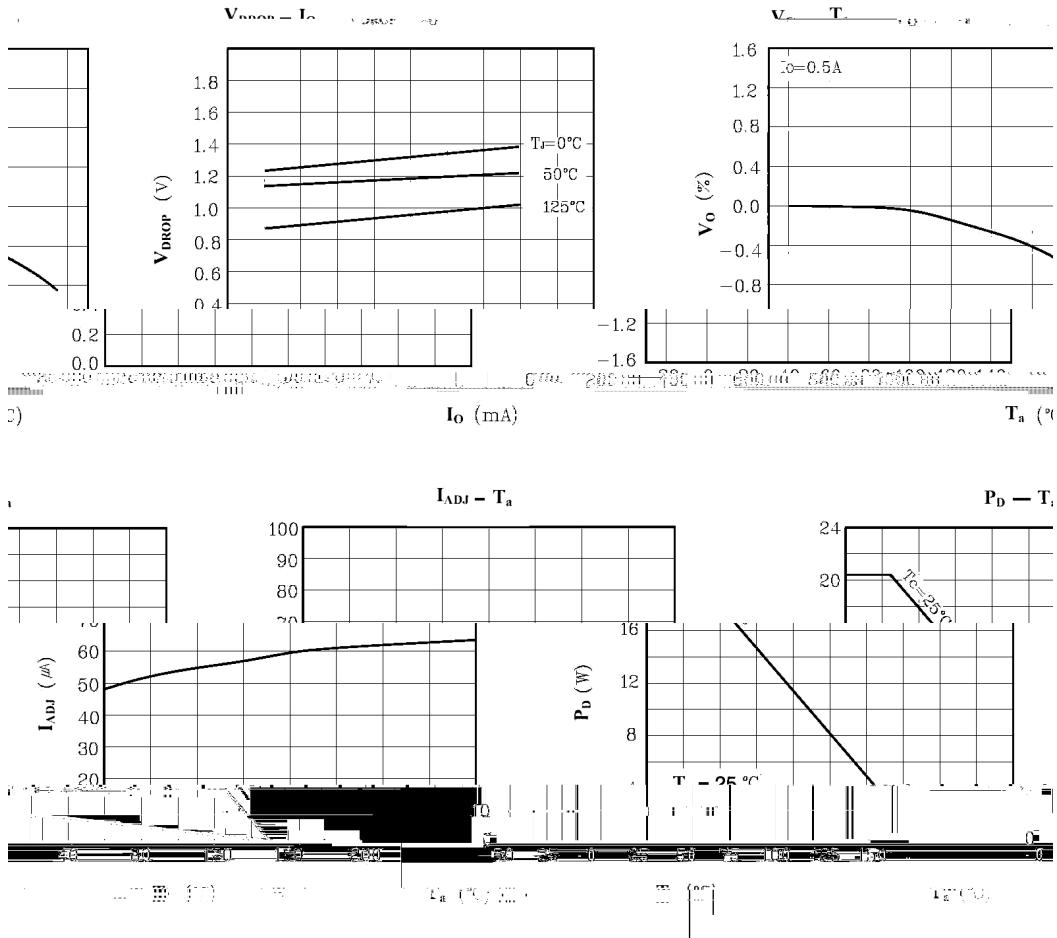
Rev.A Jan.-2024



## DATA SHEET

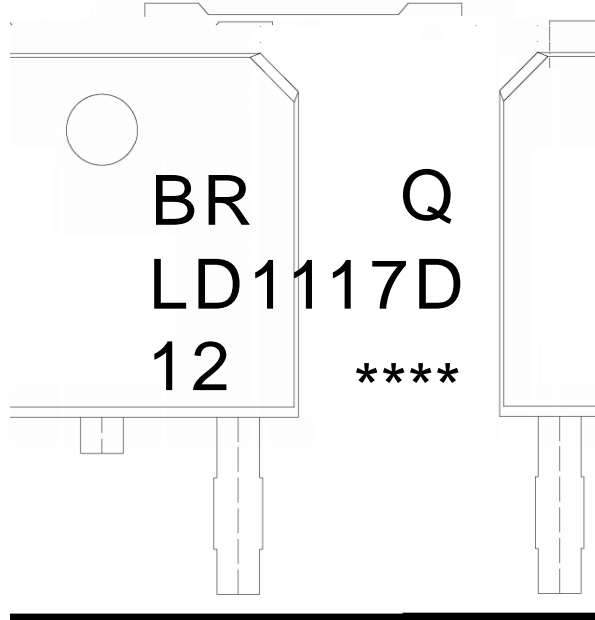
Parameter	Symbol	Type	Test Conditions	Min	Typ	Max	Unit
Supply Voltage Rejection	SVR	BRLD1117DQ-Adj	$I_o=40\text{mA}$ $f=120\text{Hz}$ , $T_j=25$ $V_{in}-V_o=3\text{V}$ , $V_{ripple}=1\text{Vpp}$	60	75		dB
		BRLD1117DQ-1.2					
		BRLD1117DQ-1.8					

**/ Electrical Characteristic Curve**





**/ Marking Instructions**



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Note:

BR:                    Company Code

Q:                     Automobile halogen-free product Code

LD1117D:            Product Type Code

12:                    On Behalf 1.2V

\*\*\*\*:                 Lot No. Code, code change with Lot No

( ) / Resistance to Soldering Heat Test Conditions


**Note:**

- 1            150~200            60~120sec;    1.Preheating:150~200 , Time:60~120sec.
- 2            255±5                    5±0.5sec;    2.Peak Temp.:255±5 , Duration:5±0.5sec.
- 3                            2~10 /sec.            3. Cooling Speed: 2~10 /sec.

**/ Resistance to Soldering Heat Test Conditions**

260±5                    10±1 sec.                    Temp.:260±5                    Time:10±1 sec

**/ Packaging SPEC.**

**/ REEL**

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TO-252	2,500	2	5,000	6	30,000	13 ×16	360×360×50	380×335×366