BRLD1117DQ

Rev.A Jan.-2024

DATA SHEET

"Yت / Descriptions

TO-252 ⊥ ⊃ ذ Voltage Regulator in a TO-252 Plastic Package.

◕ È / Features

ـ ' H, , ڑ ⊃ ڑ 800mA, ⊕ص ♬ص ⅃ DHF0T433 ـ ، ⌊

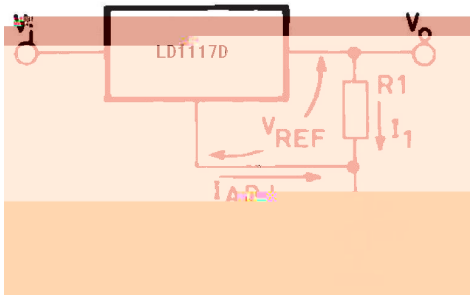
High efficiency, Low dropout voltage(1V TYP.)output current up to 800mA, internal current and thermal limit, Qualified to AEC-Q100 Standards for High Reliability, HF Product.

⅄ ⅋ / Applications

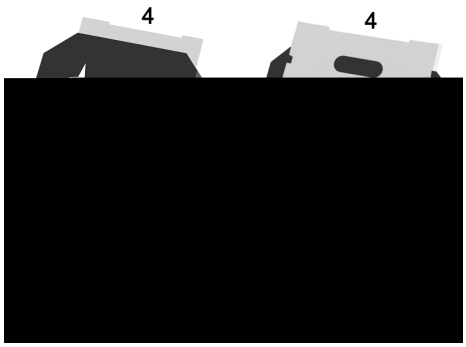
⊃ ذ ◗ ' ج ⅋ ⌊

Voltage Regulator, Meet the stringent requirements of automotive applications.

Ⅎ ⅁ ᾷ ⅃ ع / ⅄ ⅄ ⅃ ع Equivalent Circuit or Application Circuit



ã ⅄ ʊ̃ / Pinning



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

⅃ ⅄ ⅃ / Marking

δ ⅃ ب

See Marking Instructions.

ώ ۥ Ǝ Ą / Absolute Maximum Ratings(Ta=25 ﻝ)

Parameter	٦ N Symbol	Rating	Ꮒ Unit
Input voltage	V_I	15	V
Thernal Resistance Junction-case	$R_{\theta JC}$	8	/W
Storage temperature range	T_{stg}	-40 150	

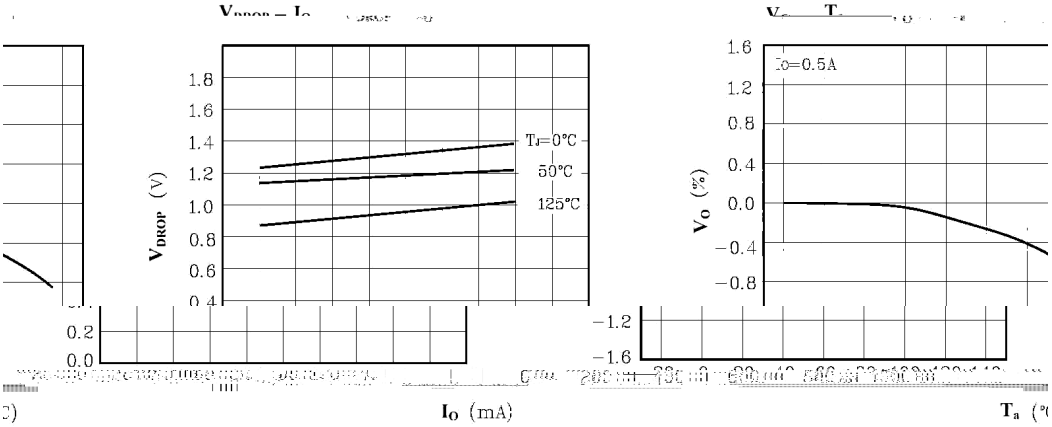
⁄ ﻝ Ǝ Ą / Electrical Characteristics(Ta=25 ﻝ)

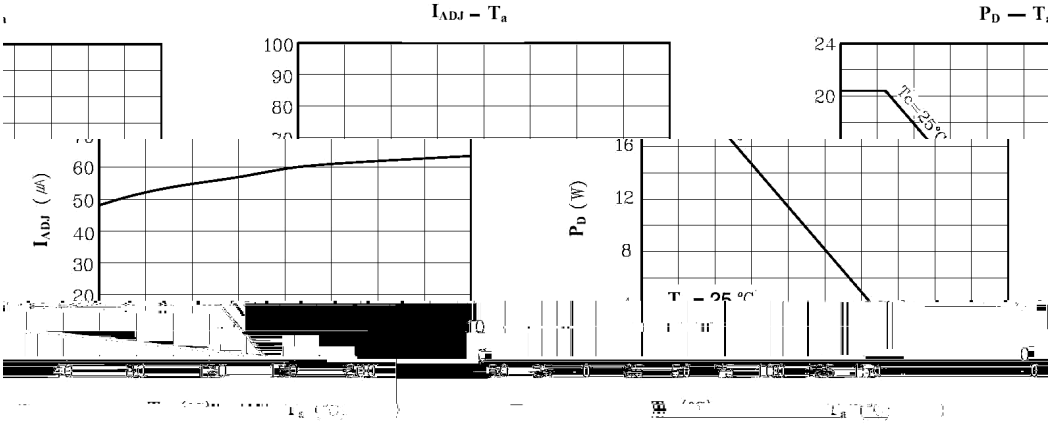
Parameter	٦ N Symbol	N Type	⁚ Test Conditions	Min	Typ	Max	Ꮒ Unit
Reference Voltage	Vref	BRLD1117DQ- Adj	Vin-Vo=2V T_j=25 Io=10mA	1.225	1.25	1.275	V
			10mA≤Io≤800mA 1.4V≤(Vin-Vo)≤10V	1.225	1.25	1.275	
Output Voltage	Vo	BRLD1117DQ-1.2	Vin=3.2V T_j=25 Io=10mA	1.176	1.2	1.224	V
			10mA≤Io≤800mA, 3V≤Vin≤8V	1.176	1.2	1.224	
		BRLD1117DQ-1.8	Vin=3.8V T_j=25 Io=10mA	1.764	1.8	1.836	V
			0≤Io≤800mA, 3.3V≤Vin≤8V	1.764	1.8	1.836	
		BRLD1117DQ-2.5	Vin=4.5V T_j=25 Io=10mA	2.45	2.5	2.55	V
			0≤Io≤800mA, 3.9V≤Vin≤10V	2.45	2.5	2.55	
		BRLD1117DQ-3.3	Vin=5.3V T_j=25 Io=10mA	3.234	3.3	3.366	V
			0≤Io≤800mA, 4.75V≤Vin≤10V	3.234	3.3	3.366	
		BRLD1117DQ-5.0	Vin=7V T_j=25 Io=10mA	4.9	5	5.1	V
			0≤Io≤800mA, 6.5V≤Vin≤15V	4.9	5	5.1	
Load Regulation	Vo	BRLD1117DQ-Adj	Vin-Vo=3V 10mA≤Io≤800mA			30	mV
		BRLD1117DQ-1.2	Vin=3V 10mA≤Io≤800mA			30	mV
		BRLD1117DQ-1.8	Vin=3.3V 0mA≤Io≤800mA			30	mV
		BRLD1117DQ-2.5	Vin=3.9V 0mA≤Io≤800mA			30	mV
		BRLD1117DQ-3.3	Vin=4.75V 0mA≤Io≤800mA			30	mV
		BRLD1117DQ-5.0	Vin=6.5V0mA≤Io≤800mA			30	mV

Parameter	Symbol	Type	Test Conditions	Min	Typ	Max	Unit .c[R2(stLine

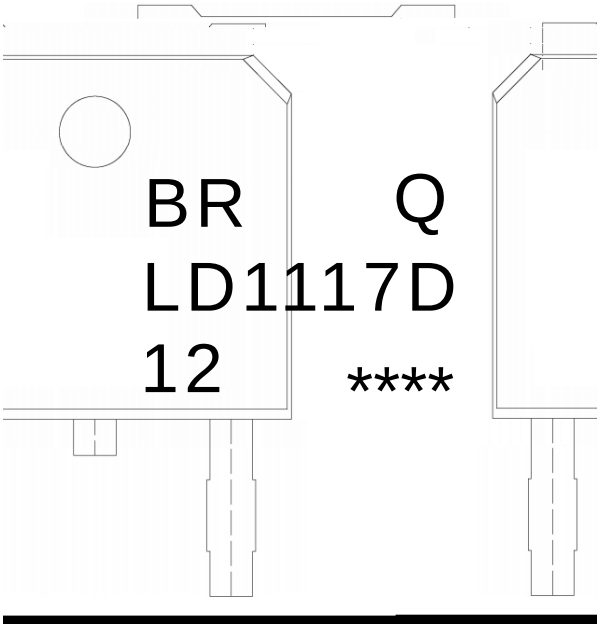
Parameter	Symbol	Type	Test Conditions	Min	Typ	Max	Unit
Supply Voltage Rejection	SVR	BRLD1117DQ-Adj	Io=40mA f=120Hz, T_j=25 Vin-Vo=3V, Vripple=1Vpp	60	75		dB
		BRLD1117DQ-1.2					
		BRLD1117DQ-1.8					

ƒ ƒ ƒ / Electrical Characteristic Curve





Ł. L"Ω / Marking Instructions



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EU χ И .

Q χ ج ٤V

LG444 : G χ N .

45= ˊ 415V

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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

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ب χ

1 أ ♬ □ 150 200 ڑ 60 120sec;

2 □ 255±5 ڑ ⅵ 5±0.5sec;

3 ⅵ ھ 2 10 /sec.

Note:

1.Preheating:150~200 , Time:60~120sec.

2.Peak Temp.:255±5 , Duration:5±0.5sec.

3. Cooling Speed: 2~10 /sec.

⅃ ǖ ɋ ˝ ˋY Ţ / Resistance to Soldering Heat Test Conditions

□ χ 260±5 ڑ χ 10±1 sec. Temp.:260±5 Time:10±1 sec

ɒ ⊢ ⊲— / Packaging SPEC.

` ⊢ / REEL

Package Type	Units					Dimension (unit mm³)		
	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