

**描述 / Descriptions**

TO-252 塑封封装电压调整器。

Voltage Regulator in a TO-252 Plastic Package.

**特征 / Features**

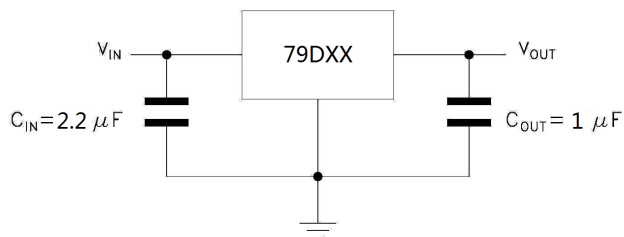
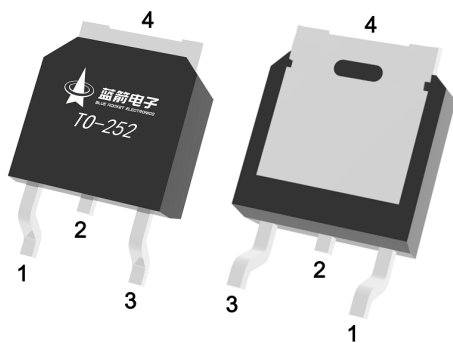
三端稳压调整器，输出电流高达 1.5A,内设过热保护和短路限制，符合 AEC-Q100 标准高可靠性要求，无卤产品。

3-Terminal regulators ,output current up to 1.5A, internal thermal overload protection and short-circuit limiting, Qualified to AEC-Q100 Standards for High Reliability, HF Product.

**用途 / Applications**

电压调整器，满足汽车应用的严格要求。

Voltage Regulator, Meet the stringent requirements of automotive applications.

**内部等效电路/应用电路 / Equivalent Circuit or Application Circuit****引脚排列 / Pinning**

PIN1 : GND

PIN 2、 4 : IN

PIN 3 : OUT

**印章代码 / Marking**

见印章说明。

See Marking Instructions.

**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

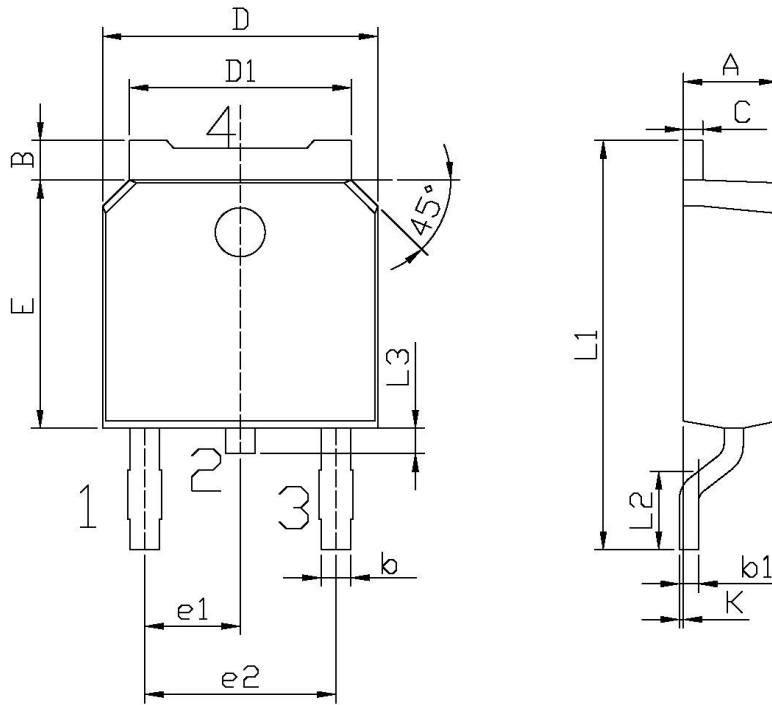
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Input voltage	V <sub>I</sub>	-35	V
Thermal Resistance Junction-Ambient	R <sub>θJA</sub>	105	°C/W
Thermal Resistance Junction-Case	R <sub>θJC</sub>	10	°C/W
Operating Junction Temperature Range	T <sub>OPR</sub>	-40~125	°C
Storage temperature range	T <sub>stg</sub>	-65~150	°C

**电性能参数 / Electrical Characteristics**

(Ta=25°C , Vi=-19V, Io=500mA , Ci=2.2μF, Co=1μF, unless otherwise specified)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Output voltage	V <sub>O</sub>	T <sub>J</sub> =25°C	-11.5	-12.0	-12.5	V
		I <sub>O</sub> =5mA~1A P <sub>O</sub> ≤15W V <sub>I</sub> =-14V~-27V	-11.4	-12.0	-12.6	V
Load Regulation	ΔV <sub>O</sub>	T <sub>J</sub> =25°C I <sub>O</sub> =5.0mA~1.5A			240	mV
		T <sub>J</sub> =25°C I <sub>O</sub> =250mA~750mA			120	mV
Line regulation	ΔV <sub>O</sub>	T <sub>J</sub> =25°C V <sub>I</sub> =-14.5V~-30V			240	mV
		T <sub>J</sub> =25°C V <sub>I</sub> =-16V~-22V			120	mV
Quiescent Current	I <sub>q</sub>	T <sub>J</sub> =25°C			6.0	mA
Quiescent Current Change	ΔI <sub>q</sub>	V <sub>I</sub> =-14.5V~-30V			1.0	mA
		I <sub>O</sub> =5mA~1A			0.5	mA
Output Voltage Drift	ΔV <sub>O</sub> /ΔT	I <sub>O</sub> =5mA		1.2		mV/°C
Output Noise Voltage	V <sub>N</sub>	B=10Hz~100KHz T <sub>J</sub> =25°C		200		μV
Supply Voltage Rejection	SVR	ΔV <sub>I</sub> =10V f=120Hz	54			dB
Dropout Voltage	V <sub>d</sub>	I <sub>O</sub> =1A T <sub>J</sub> =25°C		2.0		V
Short Circuit Current	I <sub>sc</sub>	V <sub>I</sub> =-35V T <sub>J</sub> =25°C		10		mA
Short Circuit Peak Current	I <sub>scp</sub>	T <sub>J</sub> =25°C		2.1		A

**外形尺寸图 / Package Dimensions**

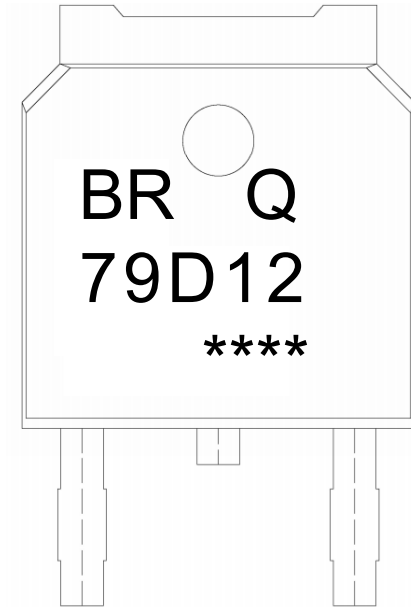


单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	2.20	2.40	E	5.95	6.25
B	0.95	1.25	e1	2.24	2.34
b	0.70	0.90	e2	4.43	4.73
b1	0.45	0.55	L1	9.85	10.35
C	0.45	0.55	L2	1.70	2.00
D	6.45	6.75	L3	0.60	0.90
D1	5.10	5.50	K	0.00	0.10

TO-252

**印章说明 / Marking Instructions**



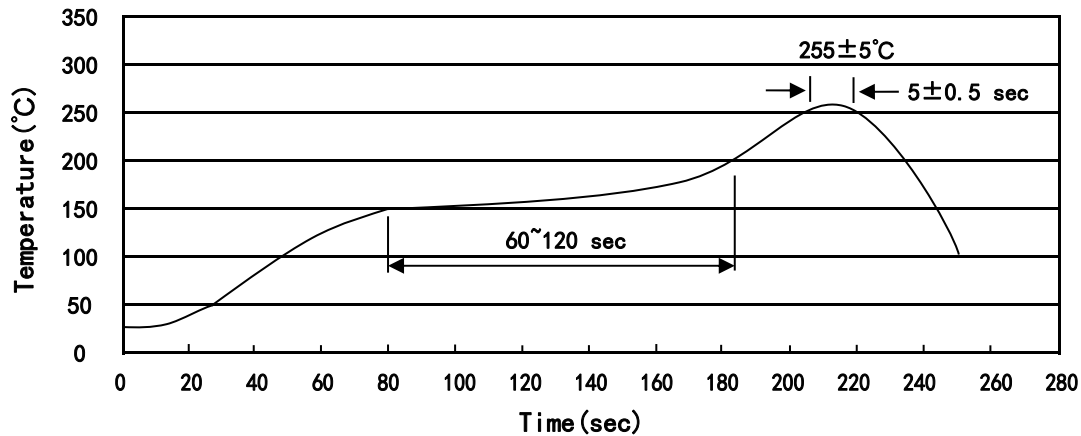
说明：

BR： 为公司代码  
Q： 为汽车无卤产品标识  
79D12： 为产品型号  
\*\*\*\*： 为生产批号代码，随生产批号变化

Note:

BR: Company Code  
Q: Automobile halogen-free product Code  
79D12: Product Type  
\*\*\*\*: Lot No. Code, code change with Lot No

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150~200°C，时间 60~120sec;
- 2、峰值温度 255±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

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

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-252	2,500	2	5,000	6	30,000	13" ×16	360×360×50	380×335×366

套管包装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

使用说明 / Notices