

**/ Descriptions**

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

**/ Features**

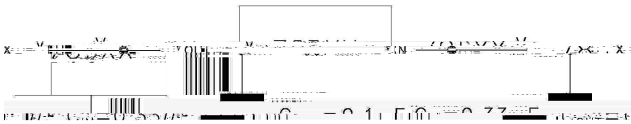
(%8# AEC-Q100

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.

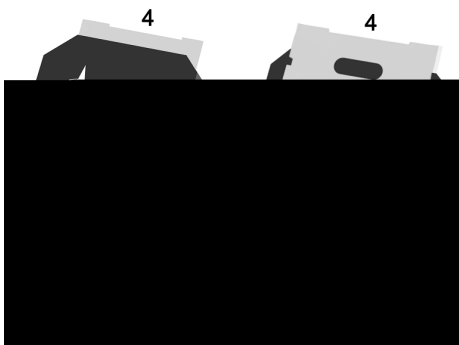
**/ Applications**

Voltage Regulator, Meet the stringent requirements of automotive applications.

**/ / Equivalent Circuit or Application Circuit**



**/ Pinning**



PIN1 IN      PIN 2 4 GND      PIN 3 OUT

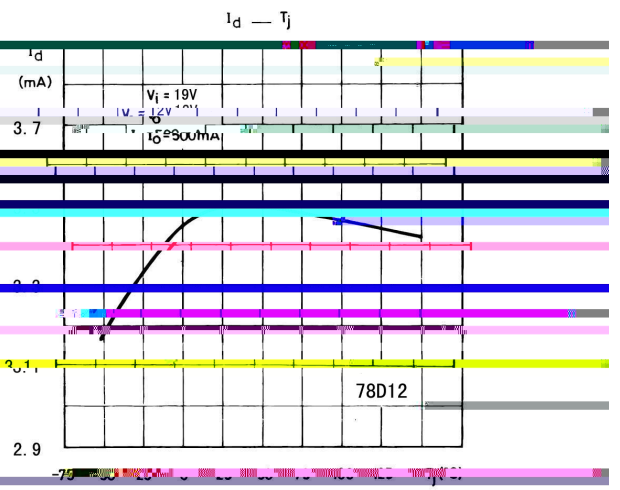
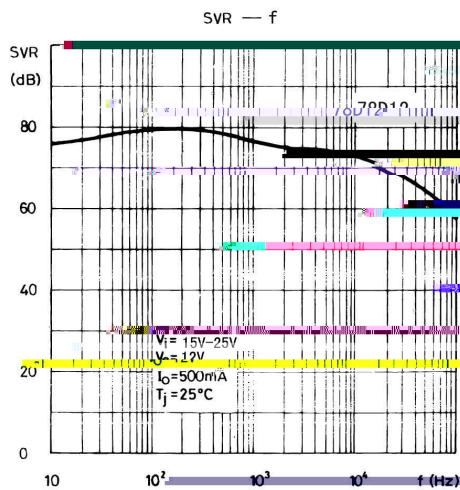
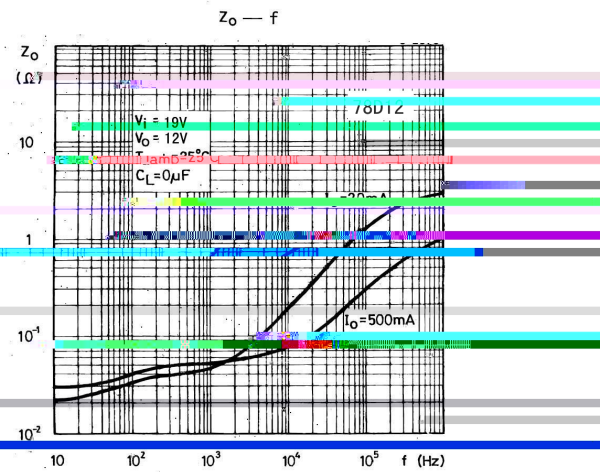
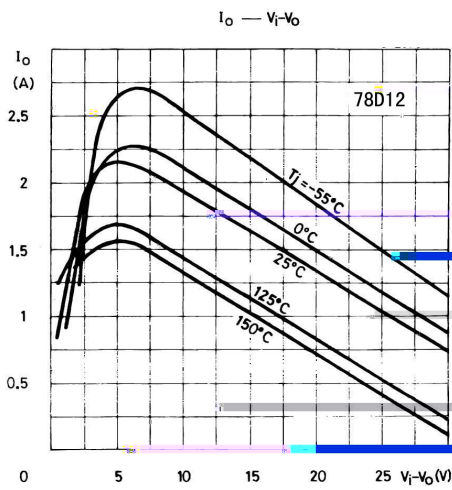
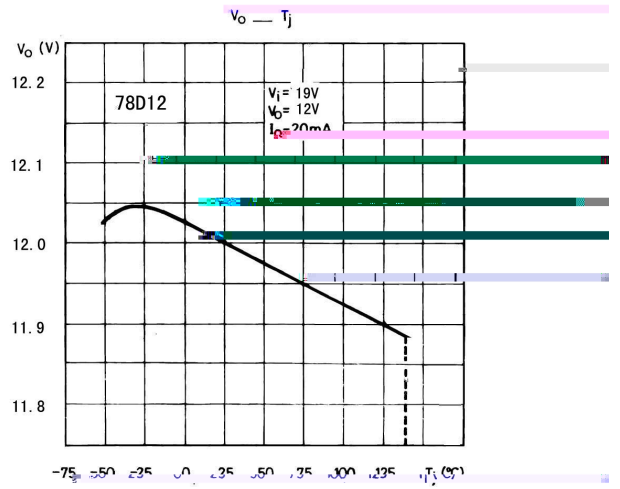
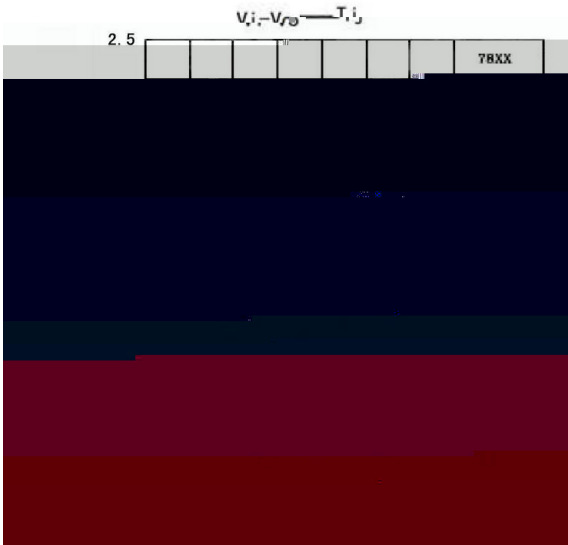
**/ Marking**

See Marking Instructions.

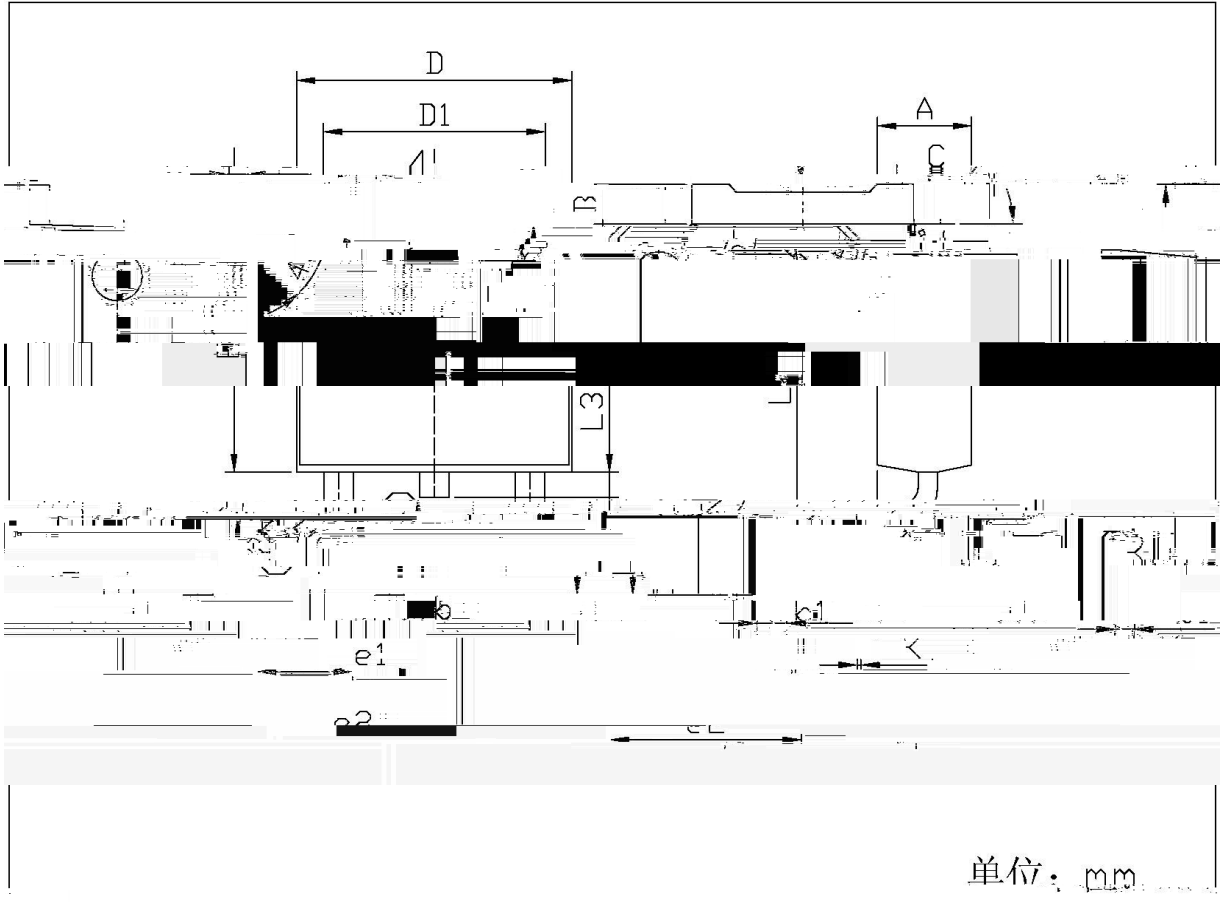
Parameter	Symbol	Rating	Unit
Input voltage	$V_i$	35	V
Thermal Resistance Junction-Ambient	$R_{JA}$	105	/W
Thermal Resistance Junction-Case	$R_{JC}$	10	/W
Operating Temperature Range	$T_{OPR}$	-40 125	
Storage temperature range	$T_{stg}$	-65 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	$V_o$	$T_j=25$	11.5	12.0	12.5	V
		$V_i=14.5V-27V$ $I_o=5mA-1A$ $P_o$ 15W	11.4	12.0	12.6	V
Load Regulation	$V_o$	$T_j=25$ $I_o=5.0mA-1.5A$			240	mV
		$T_j=25$ $I_o=250mA-750mA$			120	mV
Line regulation	$V_o$	$T_j=25$ $V_i=14.5V-30V$			240	mV
		$T_j=25$ $V_i=16V-22V$			120	mV
Quiescent Current	$I_q$	$T_I$				

/ Electrical Characteristic Curve



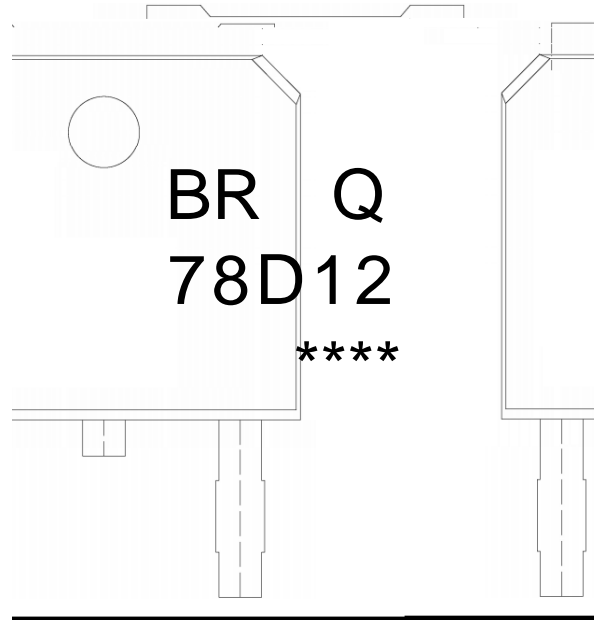
/ Package Dimensions



Dimensions		Millimeters		Dimensions		In Millimeters	
Min	Max	Symbol	Min	Max	Symbol	Min	Max
0.95	1.25	e1	2.24	2.34	B		
0.70	0.80		4.78	4.78			
4.5	5.55		9.85	10.35			
0.60	0.70		6.45	6.75			
0.70	0.70		5.10	5.5			

TQ = 252

/ Marking Instructions



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Note:

BR: Company Code

Q: Automobile halogen-free product Code

78D12: Product Type

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

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)


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. ramp 2~10 0                          |