

/ Descriptions

TO-252

Voltage Regulator in a TO-252 Plastic Package.

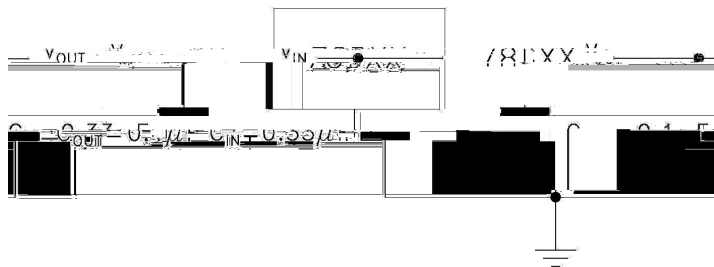
/ Features

3-Terminal regulators ,output current up to 1.5A, internal thermal overload protection and short-circuit limiting, HF Product.

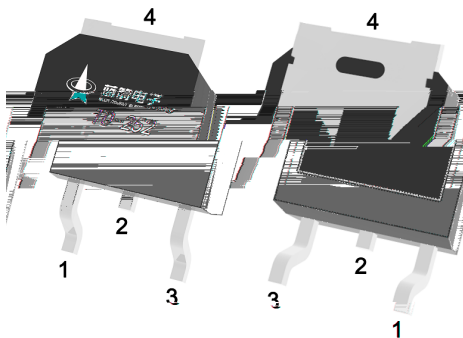
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN

PIN 2 4 GND

PIN 3 OUT

/ Marking

See Marking Instructions.

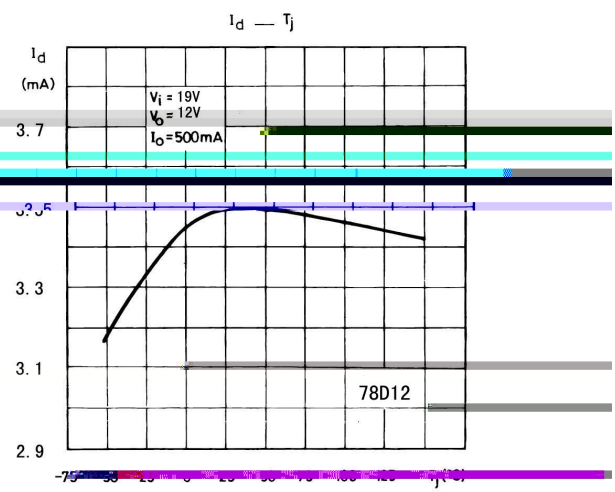
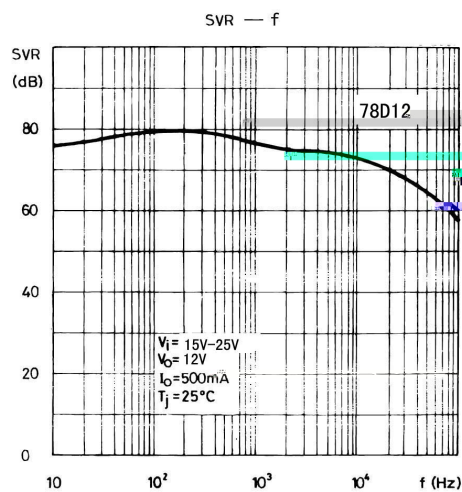
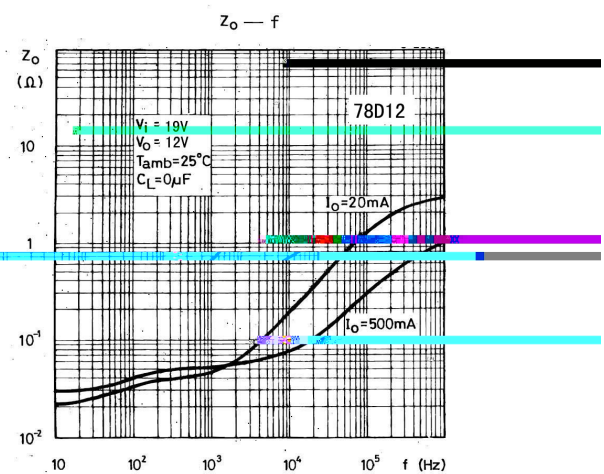
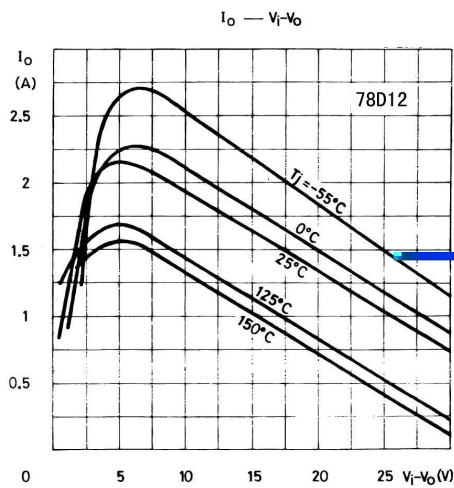
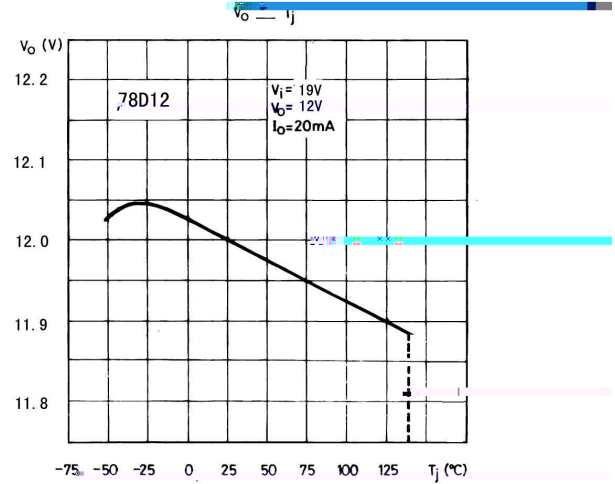
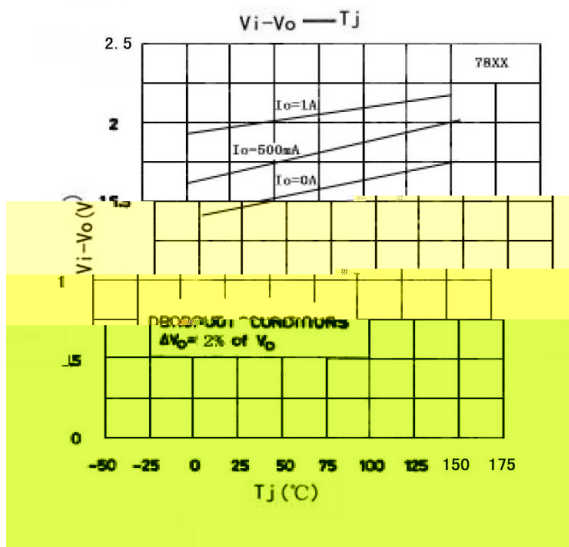
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$ -)

Parameter	Symbol	Rating	Unit
Input voltage	V_i	35	V
Thermal Resistance Junction-Ambient	$R_{\theta JA}$	65	/W
Thermal Resistance Junction-Case	$R_{\theta JC}$	5.0	/W
Operating Temperature Range	T_{OPR}	-40 125	
Storage temperature range	T_{stg}	-65 150	

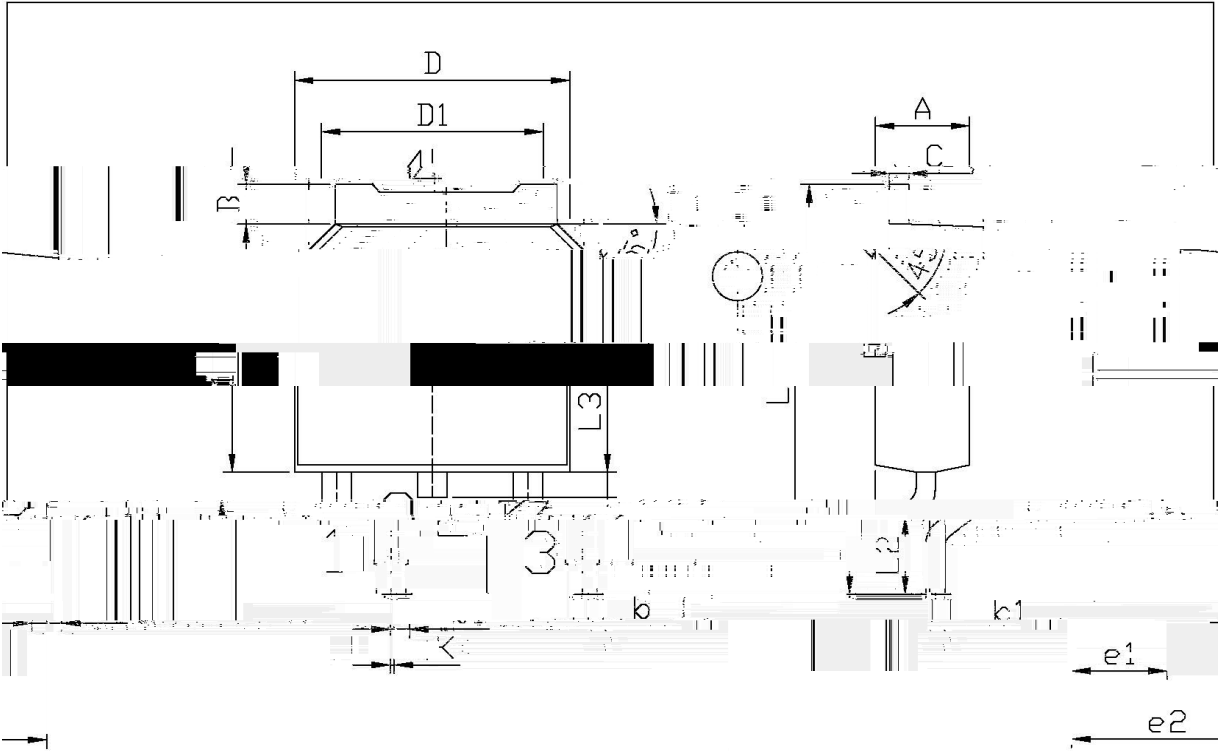
/ Electrical Characteristics($T_a=25^\circ\text{C}$ - $V_i=19\text{V}$, $I_o=500\text{mA}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25^\circ\text{C}$	11.5	12.0	12.5	V
		$V_i=14.5\text{V}-27\text{V}$ $I_o=5\text{mA}-1\text{A}$ $P_o \leq 15\text{W}$	11.4	12.0	12.6	V
Load Regulation	V_o	$T_j=25^\circ\text{C}$ $I_o=5.0\text{mA}-1.5\text{A}$			240	mV
		$T_j=25^\circ\text{C}$ $I_o=250\text{mA}-750\text{mA}$			120	mV
Line regulation	V_o	$T_j=25^\circ\text{C}$ $V_i=14.5\text{V}-30\text{V}$			240	mV
		$T_j=25^\circ\text{C}$ $V_i=16\text{V}-22\text{V}$			120	mV
Quiescent Current	I_q	$T_j=25^\circ\text{C}$			8.0	mA
Quiescent Current Change	I_q	$V_i=14.5\text{V}-30\text{V}$			1.0	mA
		$I_o=5\text{mA}-1\text{A}$			0.5	mA
Output Voltage Drift	V_o / T	$I_o=5\text{mA}$		-1		mV/
Output Noise Voltage	eN	B=10Hz-100KHz $T_j=25^\circ\text{C}$		75		$\mu\text{V}/V_o$
Supply Voltage Rejection	SVR	$V_i=15\text{V}-25\text{V}$ $f=120\text{Hz}$	55			dB
Dropout Voltage	V_d	$I_o=1\text{A}$ $T_j=25^\circ\text{C}$		2.0		V
Output Resistance	R_o	$f=1\text{KHz}$		18		$\text{m}\Omega$
Short Circuit Current	I_{sc}	$V_i=35\text{V}$ $T_j=25^\circ\text{C}$		0.35		A
Short Circuit Peak Current	I_{scp}	$T_j=25^\circ\text{C}$		2.2		A

/ Electrical Characteristic Curve



/ Package Dimensions

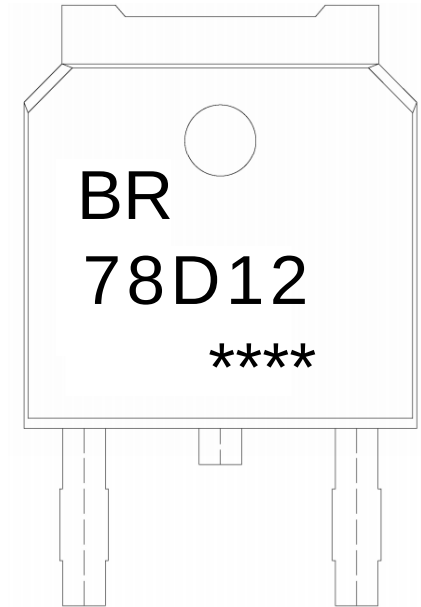


单位: mm

Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
6.25	2.24	2.34	2.20	0.95	1.25
4.42	4.18	4.72	0.70	0.50	0.90
10.35	8.85	11.85	0.45	0.35	0.55
0.45	0.35	0.55	1.70	1.50	1.90
0.60	0.50	0.70	6.45	6.25	6.65
0.90	0.80	1.00	0.10	0.05	0.15
0.00	0.00	0.00	D1		

T0-252

/ Marking Instructions



Note:

BR: Company Code

78D12: Product Type

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

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- Note:
- 11501806090sec;

1.Preheating:150~180 , Time:60~90sec.
- 2245550.5sec;

2.Peak Temp.:245 5 , Duration:5 0.5sec.
- 3210 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260 510 1 sec.Temp.:260±5Time:10±1 sec

/ Packaging SPEC.

/ REEL

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