

/ Descriptions

TO-252

Voltage Regulator in a TO-252 Plastic Package.

/ Features

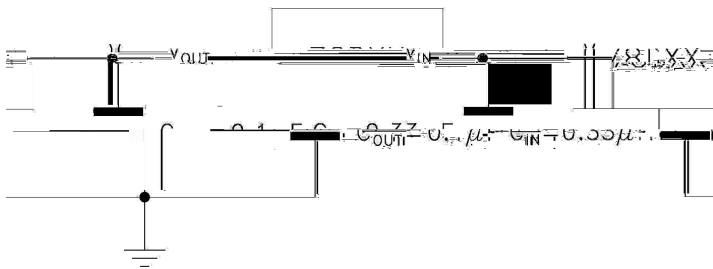
1.5A,

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

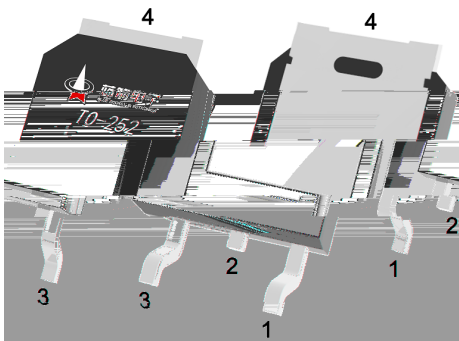
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN

PIN 2 4 GND

PIN 3 OUT

/ Marking

See Marking Instructions.

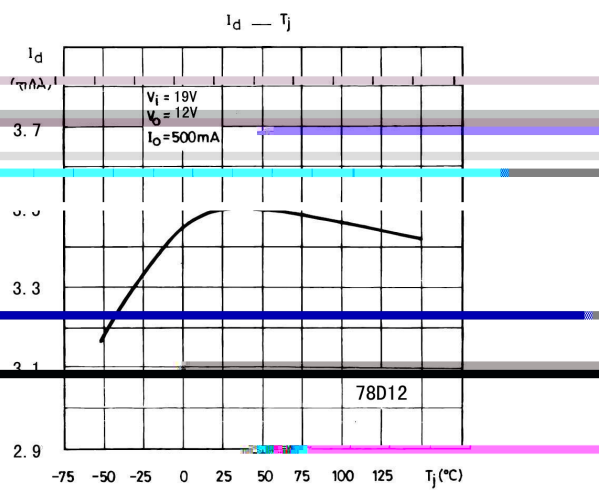
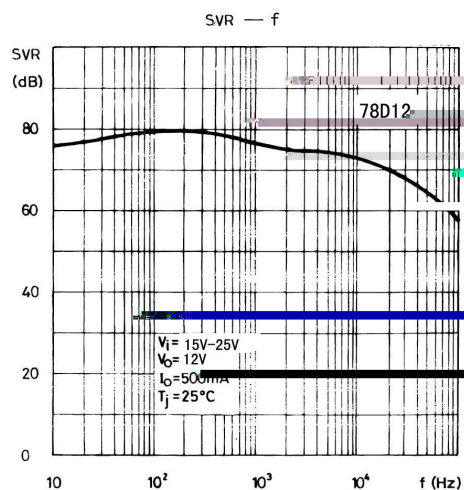
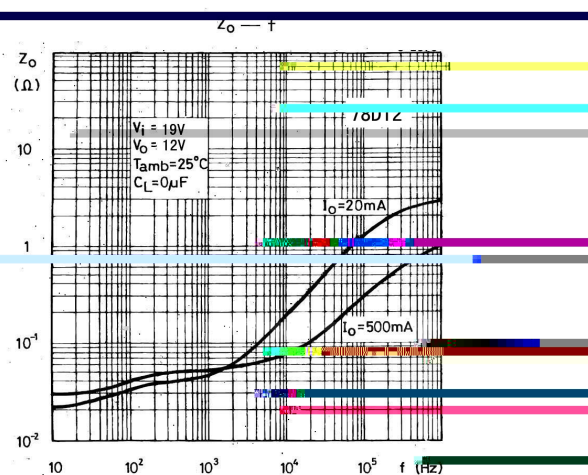
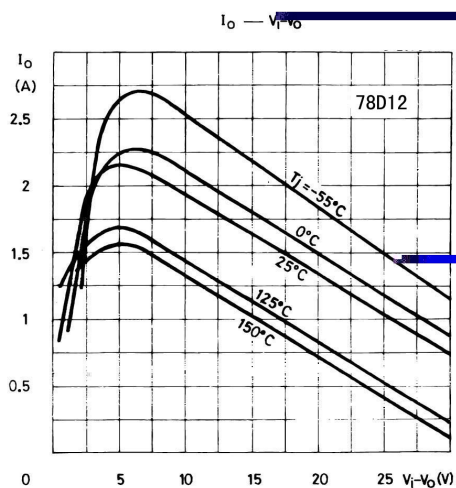
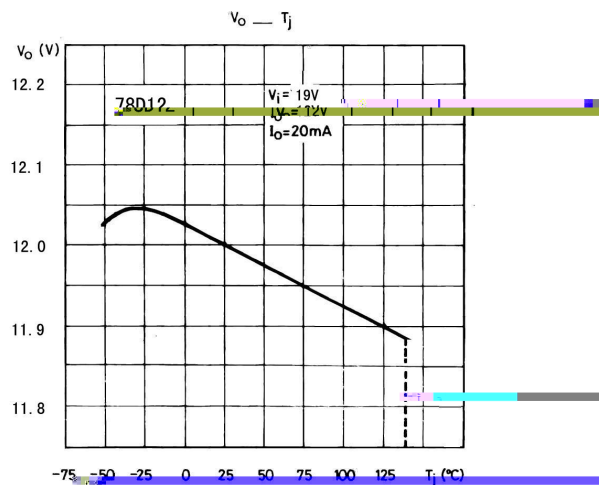
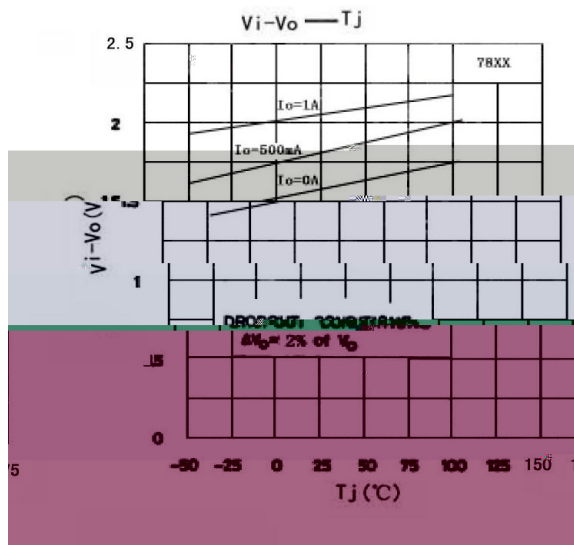
/ Absolute Maximum Ratings($T_a=25$)

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	

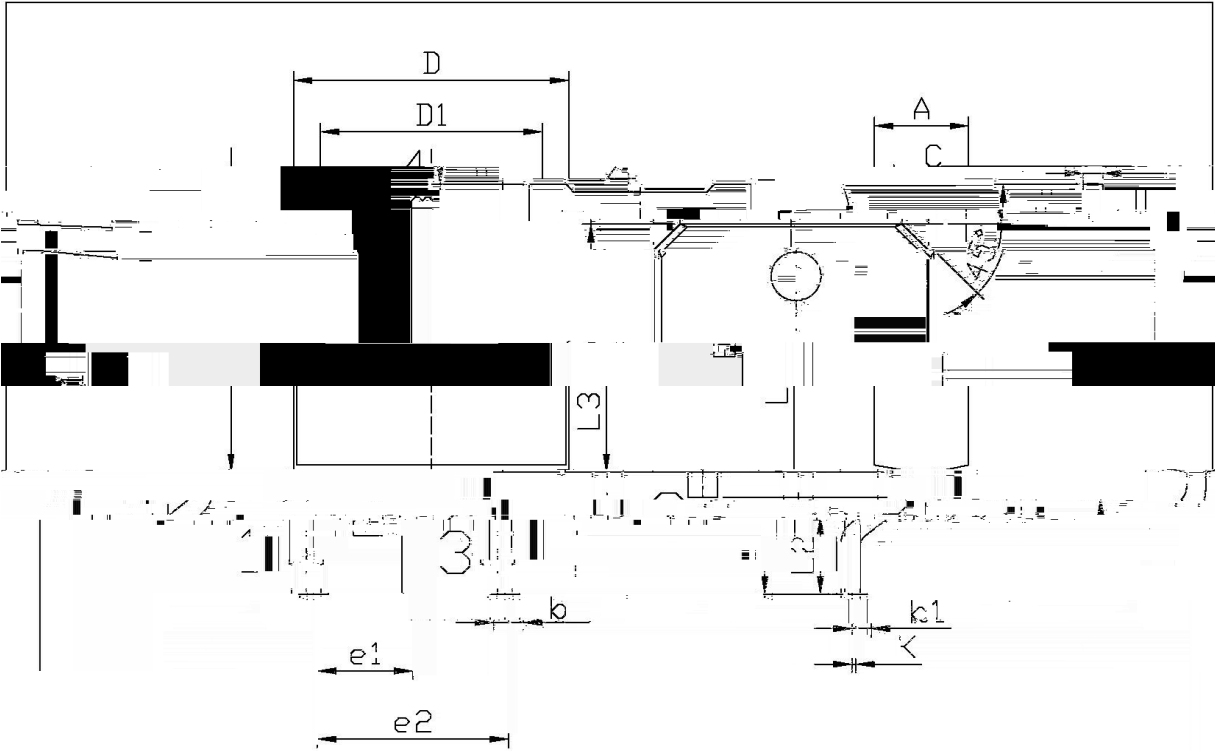
/ Electrical Characteristics($T_a=25$ $V_i=19V, I_o=500mA$ unless otherwise specified)

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

/ Electrical Characteristic Curve



/ Package Dimensions



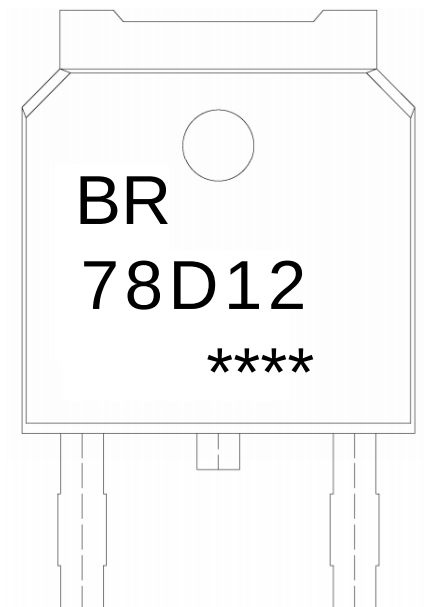
单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
6.25	A	2.20	2.40	E	5.95
2.34	B	0.95	1.25	L	2.24
4.43	b	0.70	0.90	e2	
9.85	b1	0.45	0.55	L1	
0.60	0.45	0.55	1.2	1.70	2.00
0.90	0.90	0.10	D1	6.45	6.75
0.00	0.00	0.10		5.10	5.50

J-252

TI

/ Marking Instructions



BR

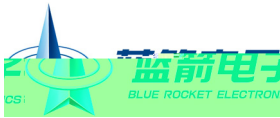
78D12

Note:

BR: Company Code

78D12: Product Type

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



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

Note:

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