

/ Descriptions

TO-252

Voltage Regulator in a TO-252 Plastic Package.

/ Features

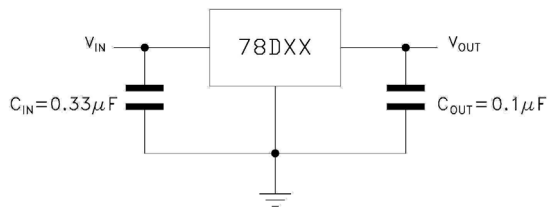
1.5A,

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

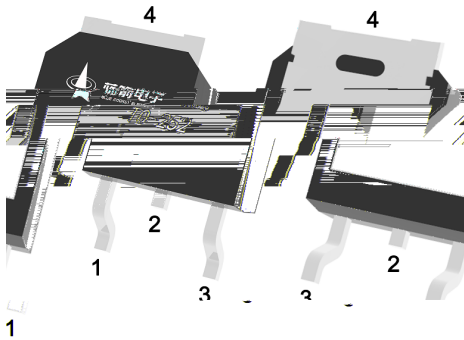
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN

PIN 2 4 GND

PIN 3 OUT

/ Marking

See Marking Instructions.

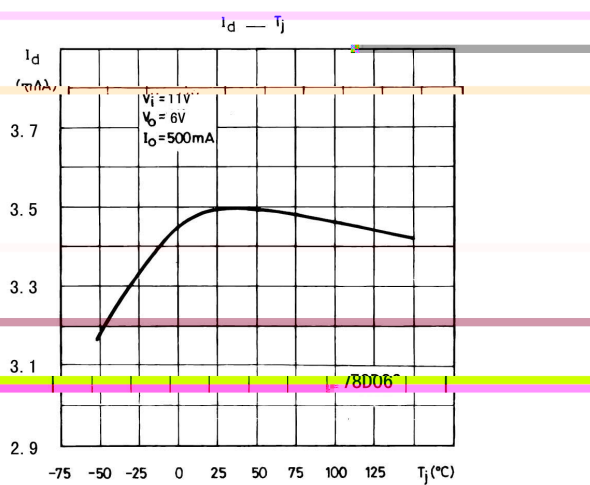
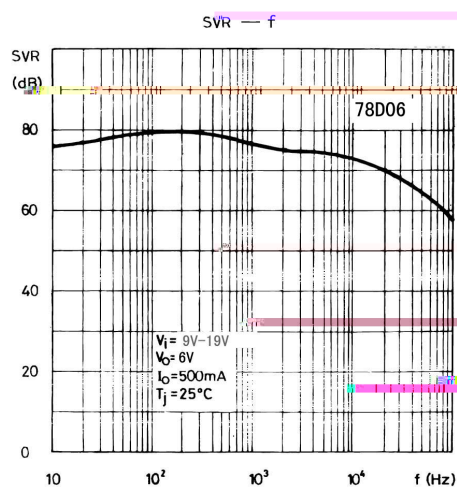
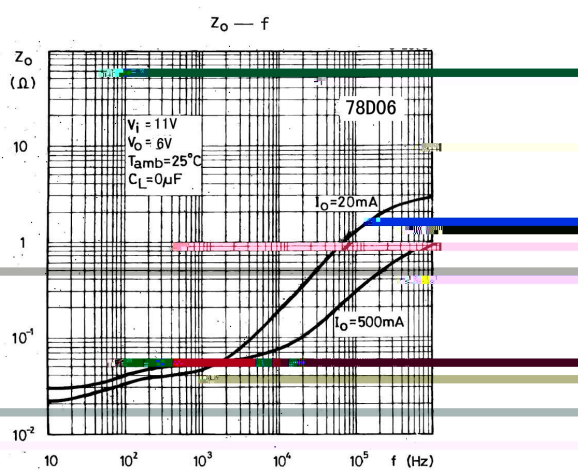
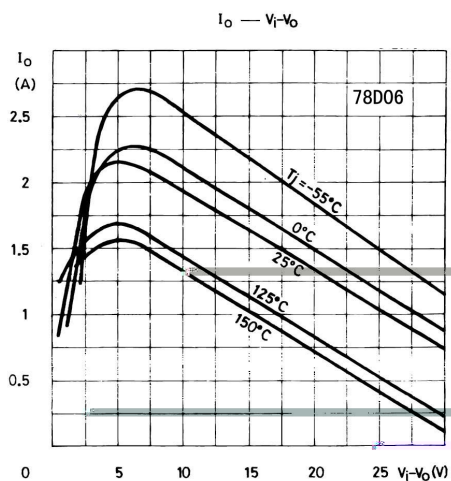
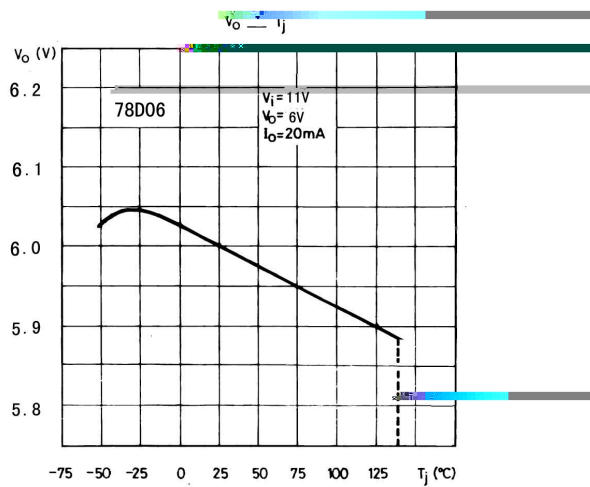
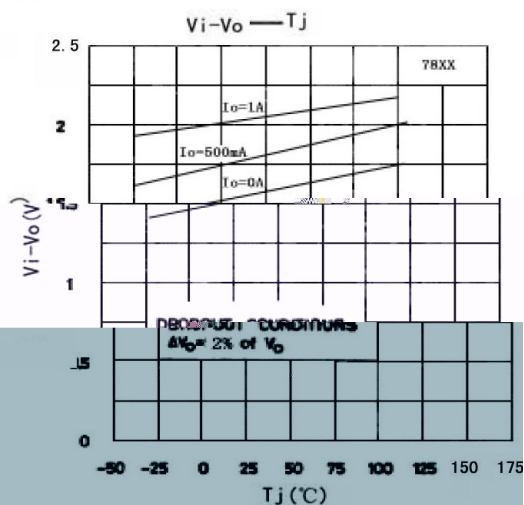
/ Absolute Maximum Ratings($T_a=25$)

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	

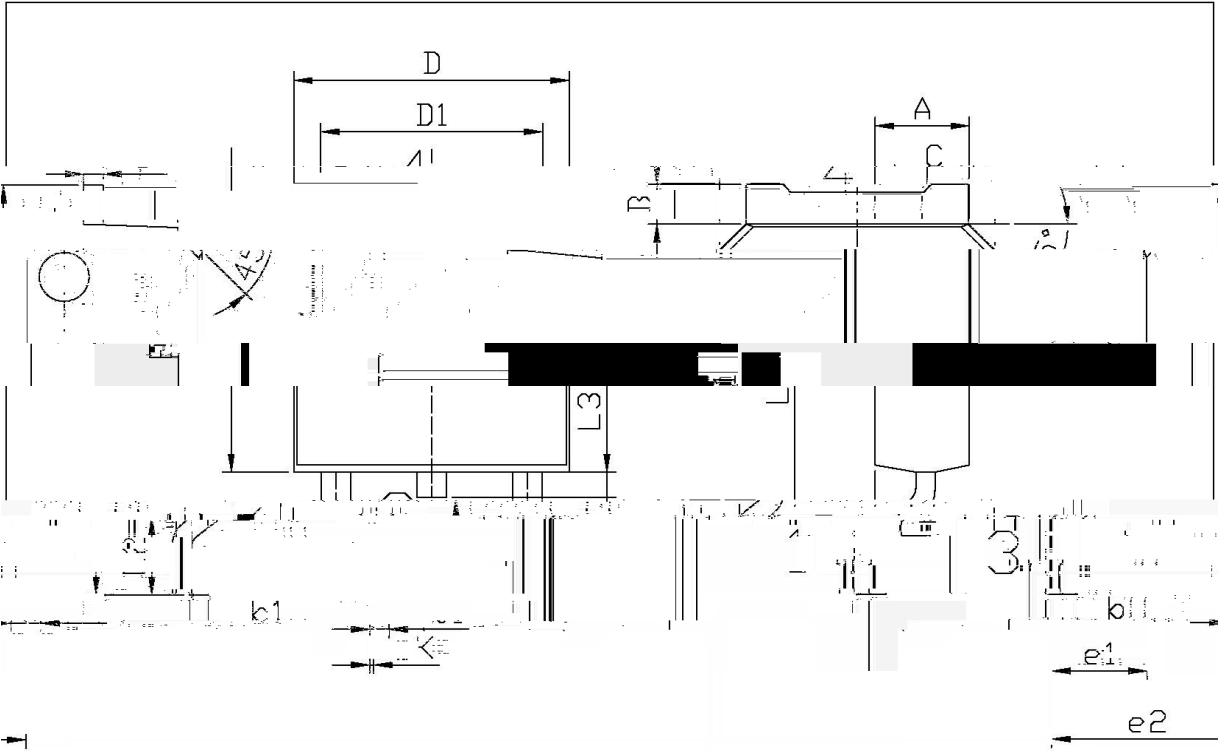
/ Electrical Characteristics($T_a=25$ $V_i=11V, I_o=500mA$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25$	5.75	6.0	6.25	V
		$V_i=9V-21V, I_o=5mA-1A, P_o \leq 15W$	5.7	6.0	6.3	V
Load Regulation	V_o	$T_j=25, I_o=5mA-1.5A$			120	mV
		$T_j=25, I_o=250mA-750mA$			60	mV
Line regulation	V_o	$T_j=25, V_i=8V-25V$			120	mV
		$T_j=25, V_i=9V-13V$			60	mV
Quiescent Current	I_q	$T_j=25$			8.0	mA
Quiescent Current Change	I_q	$V_i=9V-25V$			0.8	mA
		$I_o=5mA-1A$			0.5	mA
Output Voltage Drift	V_o / T	$I_o=5mA$		-0.8		mV/
Output Noise Voltage	eN	B=10Hz-100KHz $T_j=25$		45		$\mu V/V_o$
Supply Voltage Rejection	SVR	$V_i=9V-19V, f=120Hz$	59	75		dB
Dropout Voltage	V_d	$I_o=1A, T_j=25$		2.0		V
Output Resistance	R_o	$f=1KHz$		19		$m\Omega$
Short Circuit Current	Isc	$V_i=35V, T_j=25$		0.55		A
Short Circuit Peak Current	Iscp	$T_j=25$		2.2		A

/ Electrical Characteristic Curve



/ Package Dimensions

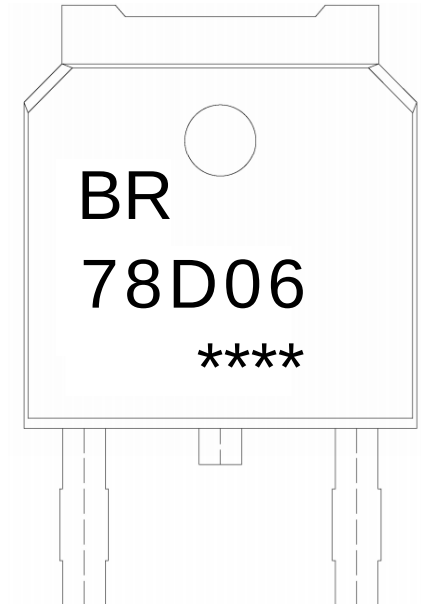


单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	2.24	2.34	A	2.20	2.40
B	0.95	1.25	B	0.95	1.25
C	0.45	0.55	C	0.45	0.55
D	6.25	6.75	D	6.25	6.75
D1	5.50	5.70	D1	5.50	5.70
L1	9.85	10.35	L1	9.85	10.35
L3	0.60	0.90	L3	0.60	0.90
b1	0.45	0.55	b1	0.45	0.55
e1	0.70	0.80	e1	0.70	0.80
e2	1.70	2.00	e2	1.70	2.00

T0-252

/ Marking Instructions



BR

78D06

Note:

BR: Company Code

78D06: Product Type

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

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



Note:

- | | | | | | |
|---|-------|-----|----|-----------|--|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 °C , Time:60~90sec. |
| 2 | 245±5 | | | 5±0.5sec; | 2.Peak Temp.:245±5 °C , Duration:5±0.5sec. |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 °C/sec. |

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
TO-252	2,500	2	5,000	6	30,000	13 ×16	360×360×50	380×335×366

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices