

/ Descriptions

TO-252

Voltage Regulator in a TO-252 Plastic Package.

/ Features

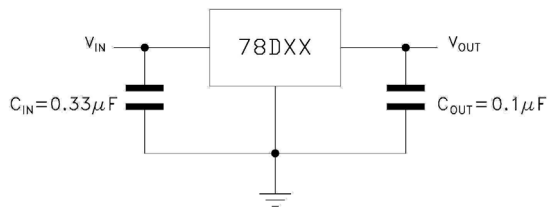
1.5A,

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

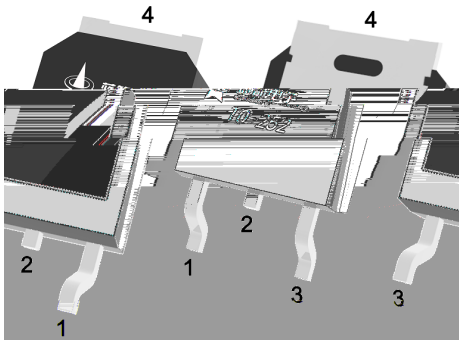
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN

PIN 2 4 GND

PIN 3 OUT

/ Marking

See Marking Instructions.

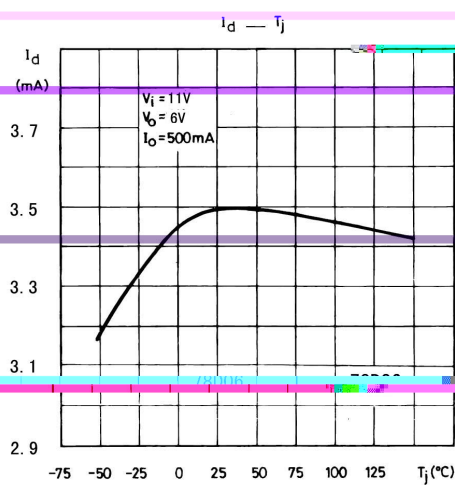
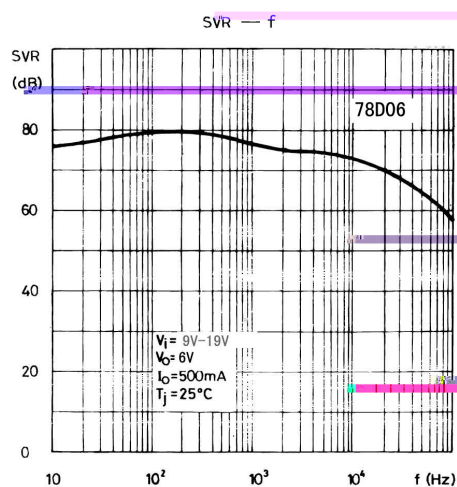
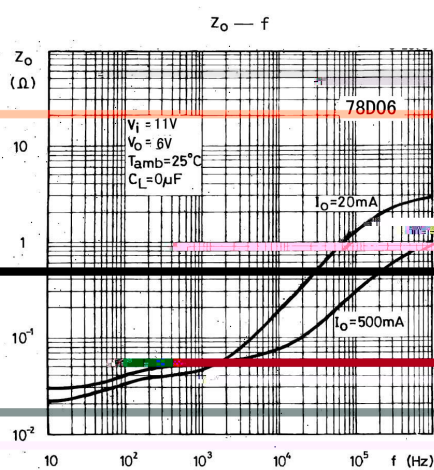
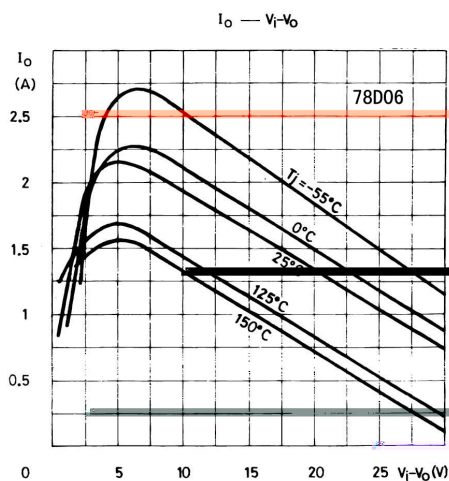
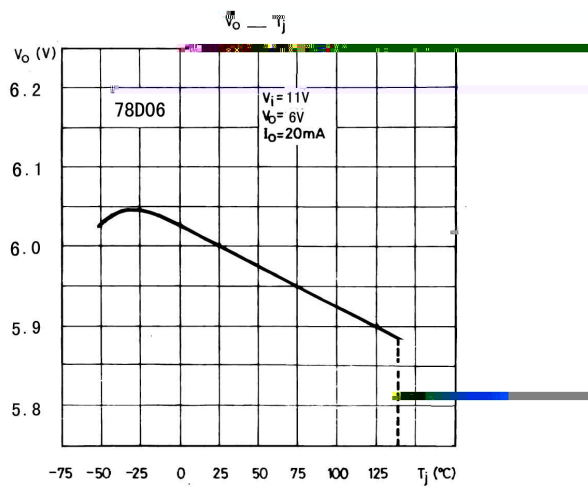
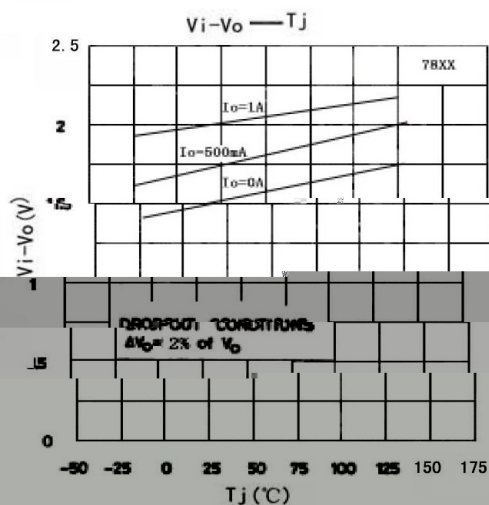
/ Absolute Maximum Ratings($T_a=25$)

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

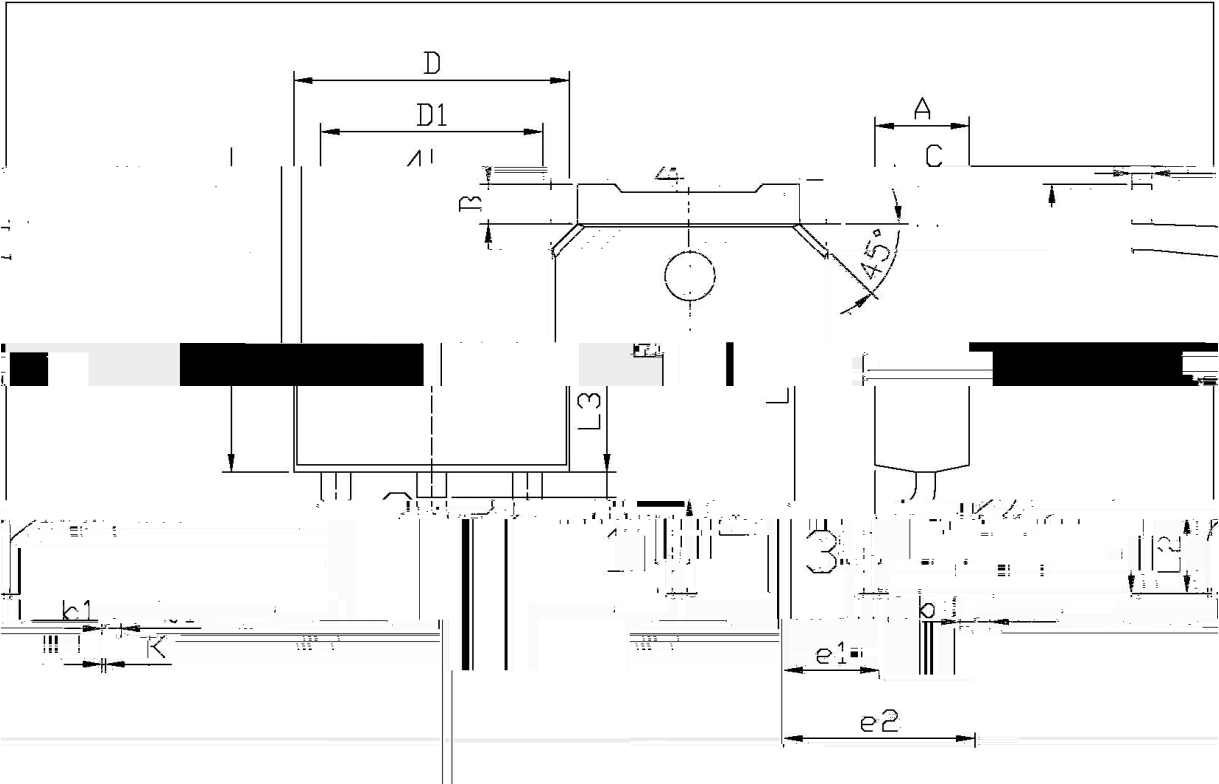
/ Electrical Characteristics($T_a=25$ $V_i=11V, I_o=500mA$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25$	5.75	6.0	6.25	V
		$V_i=9V-21V, I_o=5mA-1A$ $P_o 15W$	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		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
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

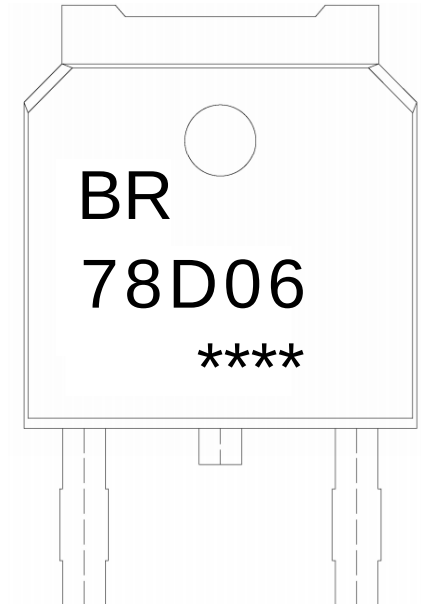


单位：mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
D	5.95	6.25	A	2.20	2.40
D1	2.24	2.34	B	0.95	1.25
E	0.45	0.55	C	0.70	0.90
L1	9.85	10.35	L2	1.70	2.00
L3	0.45	0.55	L3	1.30	0.60
K	7.10	7.50	K	0.00	0.00

T0-252

/ Marking Instructions



BR

78D06

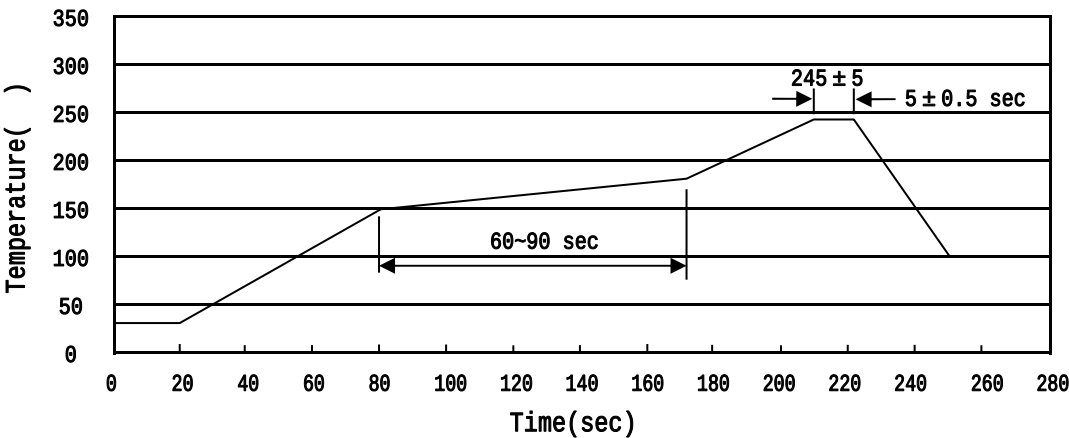
Note:

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 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /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)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
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)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices