

/ Descriptions

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

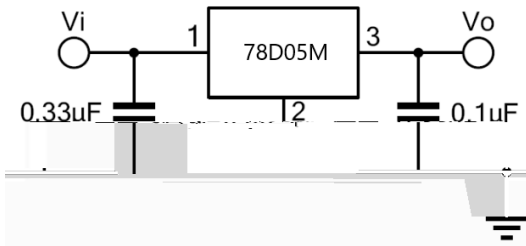
/ Features

0.5A,
3-Terminal regulators ,output current up to 0.5A, internal thermal overload protection and short-circuit limiting, HF Product.

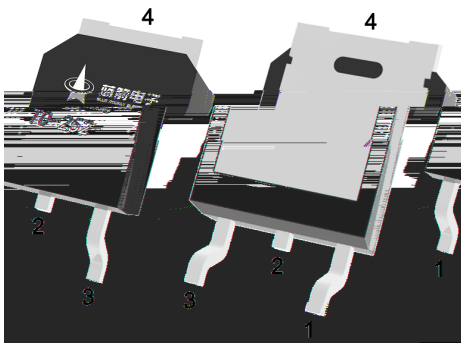
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN PIN 2 4 GND PIN 3 OUT

/ Marking

See Marking Instructions.

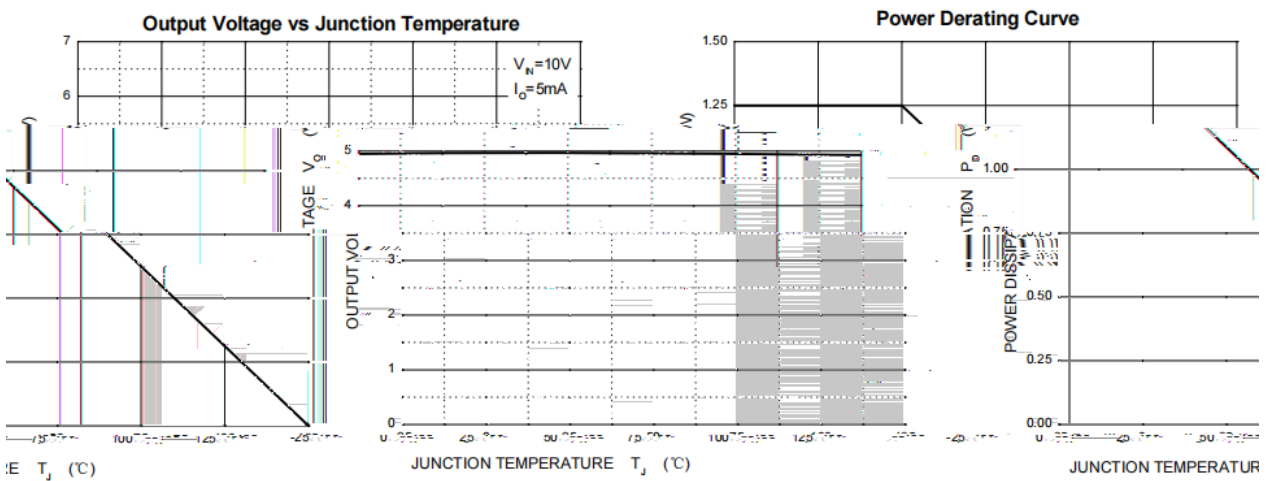
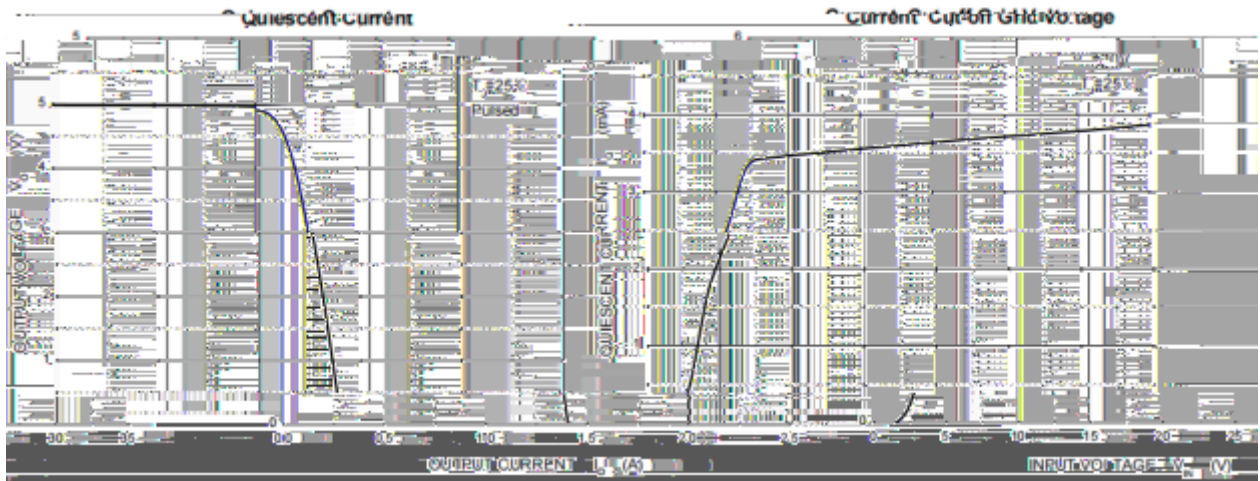
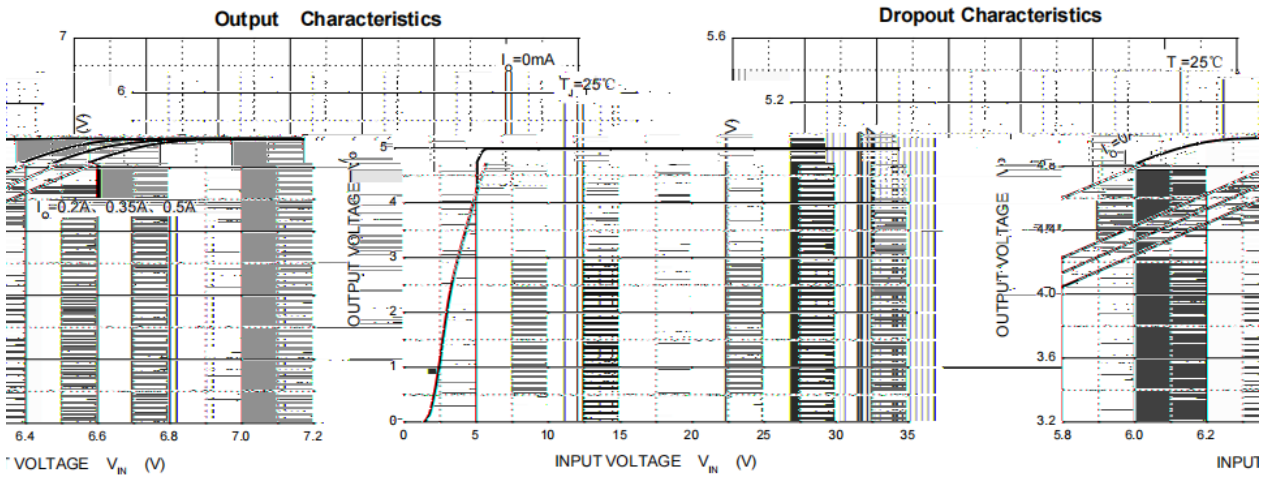
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Input voltage	V_I	35	V
Power Dissipation	P_D	Internally Limited	W
Thermal Resistance Junction-Ambient	$R_{\theta JA}$	105	/W
Thermal Resistance Junction-Case	$R_{\theta JC}$	10	/W
Operating Temperature Range	T_{OPR}	-40 125	°C
Storage temperature range	T_{stg}	-65 150	°C

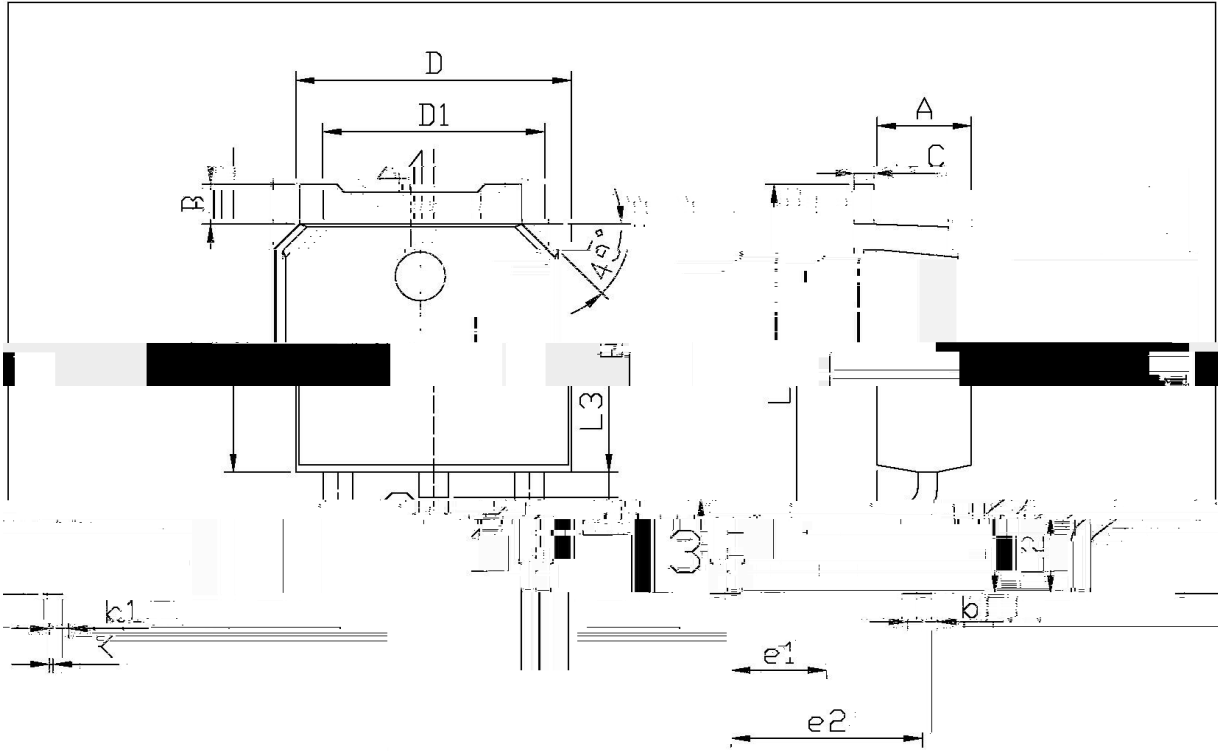
/ Electrical Characteristics($V_i=10V, I_o=350mA, T_j=0 \sim 125$,unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_j=25^\circ C$	4.8	5.0	5.2	V
		$V_i=7V \sim 20V$ $I_o=5mA \sim 350mA$	4.75	5.0	5.25	V
Load Regulation	V_{Load}	$T_j=25^\circ C$ $I_o=5mA \sim 500mA$			100	mV
		$T_j=25$ $I_o=5mA \sim 200mA$			50	mV
Line Regulation	V_{Line}	$T_j=25^\circ C$ $V_i=7V \sim 25V$			100	mV
		$T_j=25^\circ C$ $V_i=8V \sim 25V$			50	mV
Quiescent Current	I_q	$T_j=25$			6.0	mA
Quiescent Current Change	I_q	$V_i=8V \sim 25V$			0.8	mA
		$I_o=5mA \sim 350mA$			0.5	mA
Output Voltage Drift	V_o/ T	$I_o=5mA$ $T_j=0 \sim 125$		0.5		mV/°C
Output Noise Voltage	eN	B=10Hz~100KHz $T_j=25$		40		$\mu V/V_o$
Supply Voltage Rejection	SVR	$V_i=8V \sim 18V$ $f=120Hz$	62			dB
Dropout Voltage	V_d	$T_j=25$		2.0		V
Short Circuit Current	Isc	$T_j=25$		700		mA

/ Electrical Characteristic Curve



/ Package Dimensions

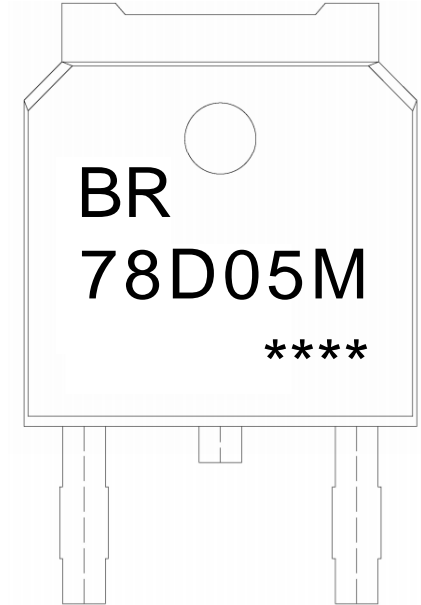


单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min.	Max.		Min.	Max.
A	2.40	5.95	L1	1.70	1.9
B	0.95	2.24	L2	0.70	0.9
C	1.25	2.24	L3	0.45	0.55
D	6.45	6.5	e1	0.55	0.6
D1	6.25	6.5	e2	0.70	0.9
L1	1.70	1.9	k1	0.45	0.55
L2	0.70	0.9			
L3	0.45	0.55			
e1	0.55	0.6			
e2	0.70	0.9			
k1	0.45	0.55			

T0-252

/ **Marking Instructions**



BR

78D05M

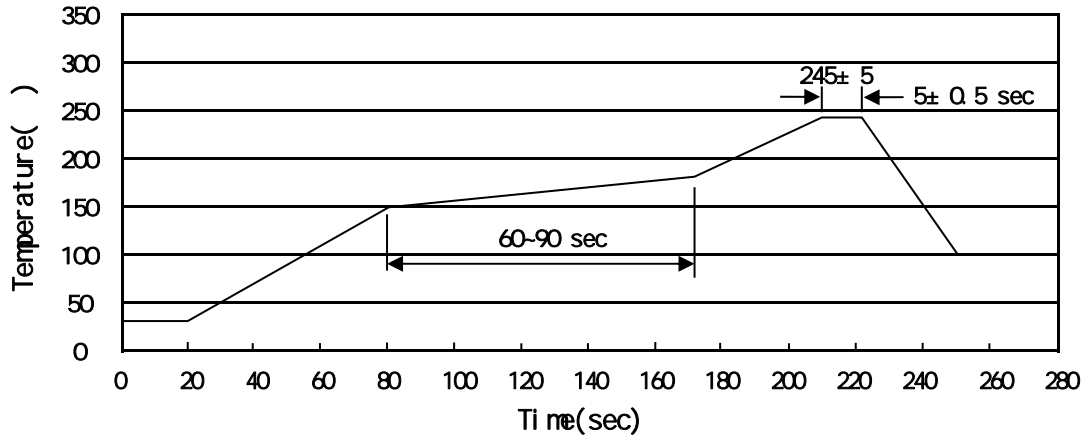
Note:

BR: Company Code

78D05M: Product Type

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

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Note:

- | | | | | | |
|---|-------|-----|-------|--------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5 | sec; | 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)		
TO-252	2,500	2	5,000	6	30,000	13 x16	360x360x50	380x335x366

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
TO-251/252	75	48	3,600	5	18,000	526x20.5x5.25	555x164x50	575x290x180

/ **Notices**

PCB