

**/ Descriptions**

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

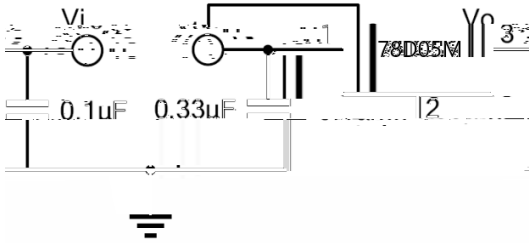
**/ Features**

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

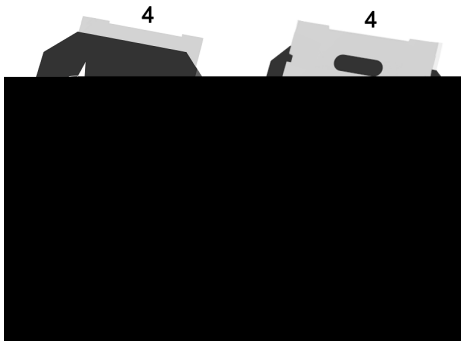
**/ Applications**

Voltage Regulator.

**/ Equivalent Circuit or Application Circuit**



**/ Pinning**



PIN1 IN      PIN 2 4 GND      PIN 3 OUT

**/ Marking**

See Marking Instructions.

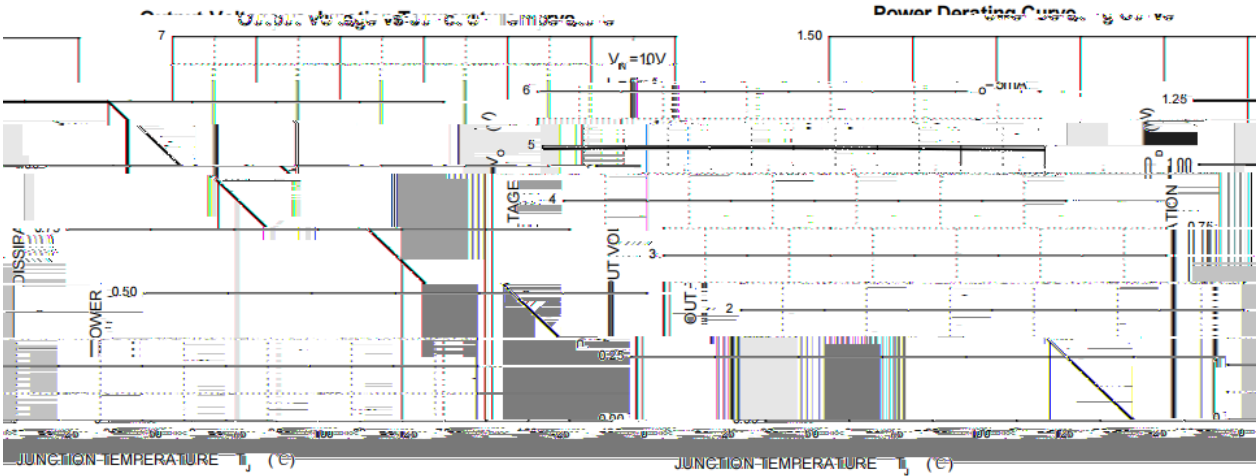
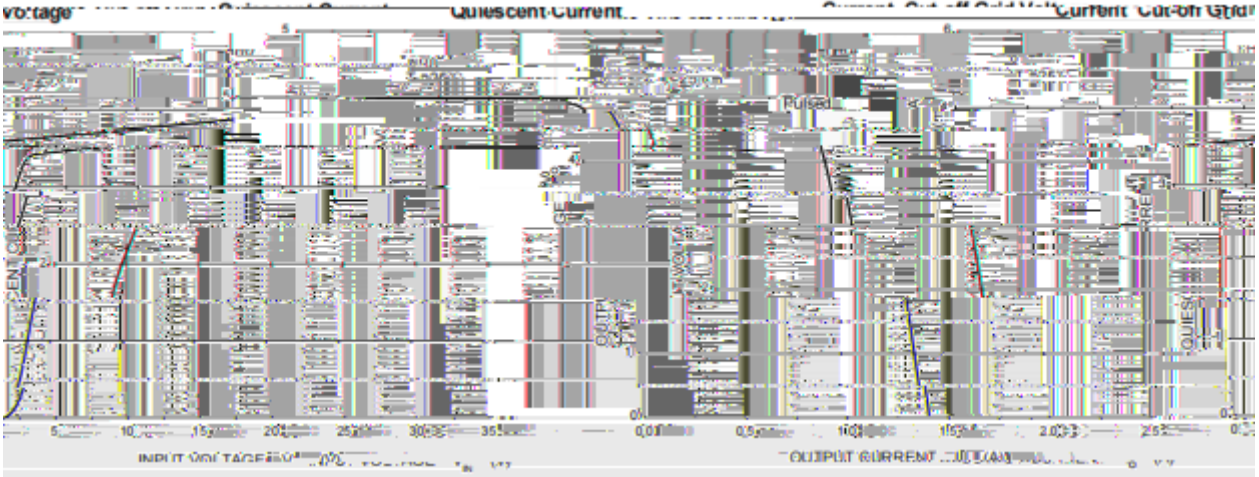
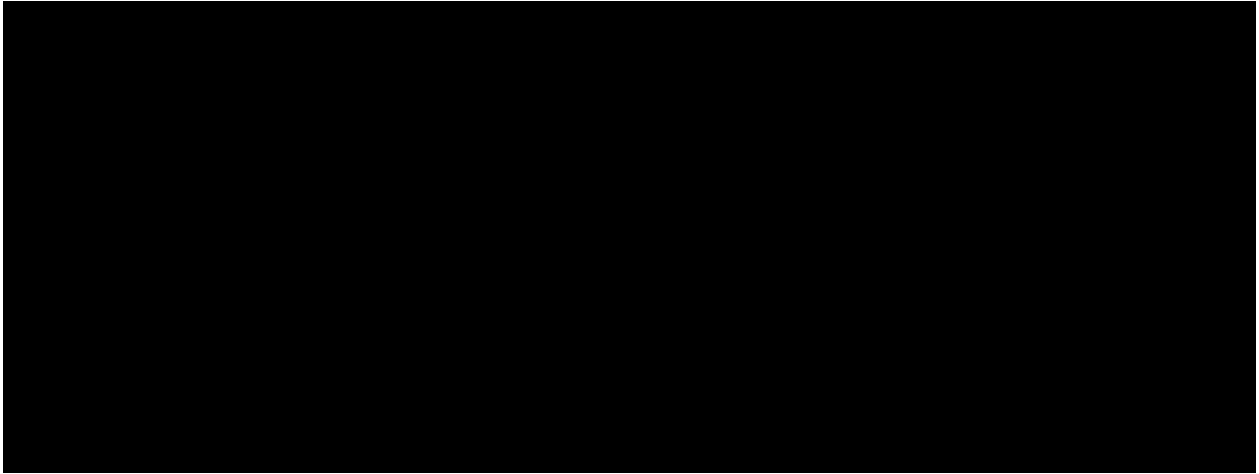
**/ Absolute Maximum Ratings(Ta=25 )**

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

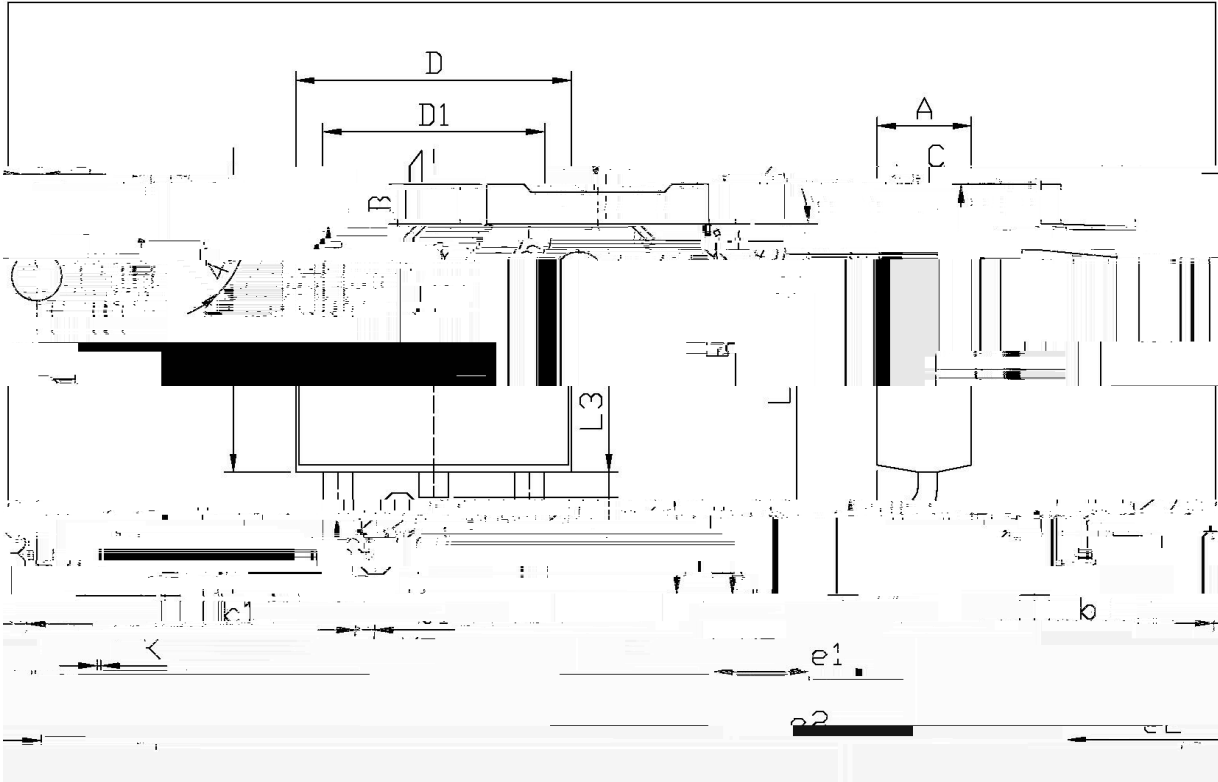
**/ Electrical Characteristics( $V_i=10V, I_o=350mA, T_j=0 \sim 125$  ,unless otherwise specified**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	$V_o$	$T_j=25$	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	$V_{Load}$	$T_j=25 \quad I_o=5mA \sim 500mA$			100	mV
		$T_j=25 \quad I_o=5mA \sim 200mA$			50	mV
Line Regulation	$V_{Line}$	$T_j=25 \quad V_i=7V \sim 25V$			100	mV
		$T_j=25 \quad V_i=8V \sim 25V$			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	$V_o/ T$	$I_o=5mA \quad T_j=0 \sim 125$		0.5		mV/
Output Noise Voltage	eN	B=10Hz~100KHz $T_j=25$		40		$\mu V/V_o$
Supply Voltage Rejection	SVR	$V_i=8V \sim 18V \quad f=120Hz$	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

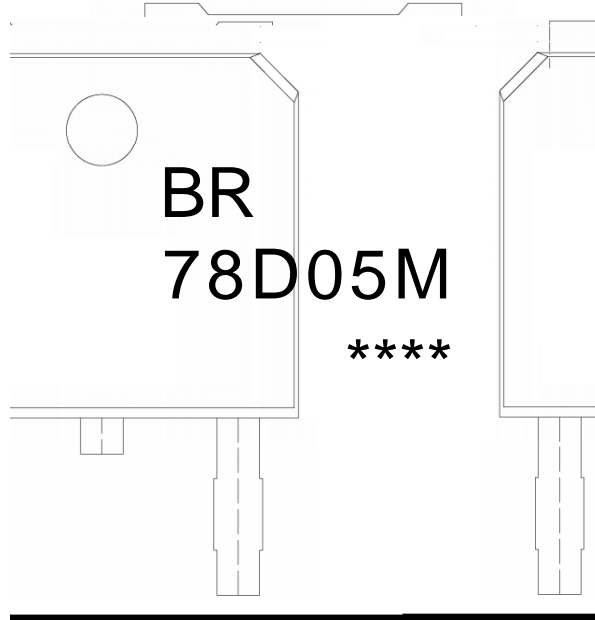


单位: mm

Dimensions	Symbol	Min	Max	Dimensions	Symbol	Min	Max
B		0.95	1.25	e1		2.24	2.34
		0.70	0.60			1.73	
		0.15	0.55			0.85	
		0.15	0.55			1.50	
		6.75	6.75			0.68	0.68
		5.10	5.50			0.60	0.70

T0-252

**/ Marking Instructions**



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Note:  
BR: Company Code  
78D05M: Product Type  
\*\*\*\*: Lot No. Code, code change with Lot No



**/ Notices**

PCB