

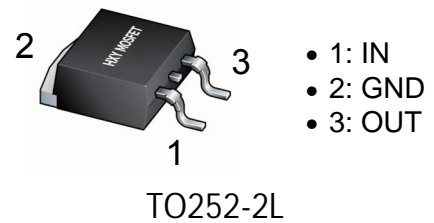


## FEATURES

- Available Output Voltage:5.0V
- Maximum Input Voltage: 35V
- Maximum Output Current:  
Exceed 500mA at  $T_J = 25^{\circ}\text{C}$
- Output Tolerances:  
 $\pm 3\%$  at  $T_J = 25^{\circ}\text{C}$   
 $\pm 5\%$  over the Operating  $T_J$
- No External Components

## Applications

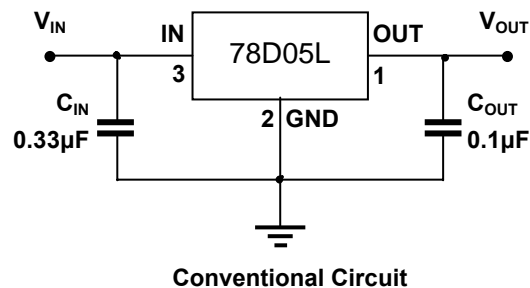
- Motor Drives
- On-Card Regulation
- Portable Devices
- Telecommunications
- TVs and Set-top Boxes



## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
78D05L	TO252-2L	78M05	2500

## Typical Application Circuit





### Absolute Maximum Ratings

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Maximum input voltage	$V_{IN}$	35	V
Maximum junction temperature	$T_{J Max}$	150	°C
Storage temperature	$T_{stg}$	- 65 ~ 150	°C
Soldering temperature & time	$T_{solder}$	260°C, 10s	-

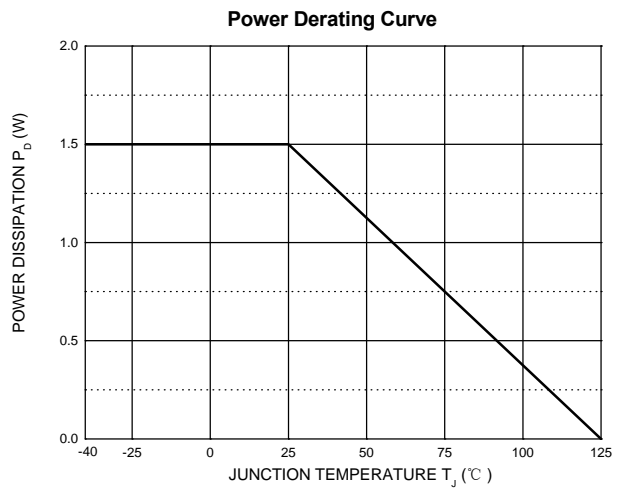
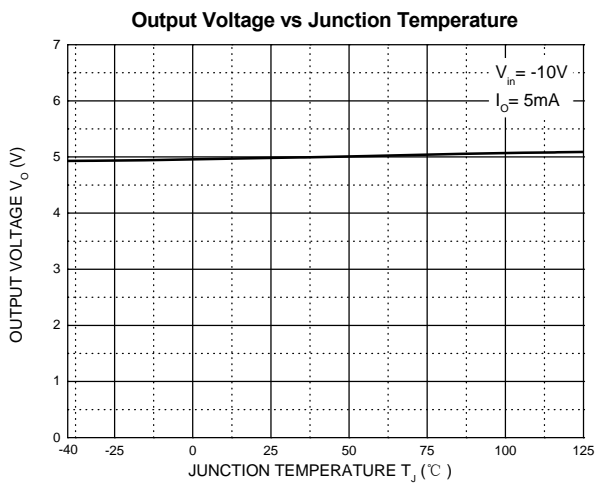
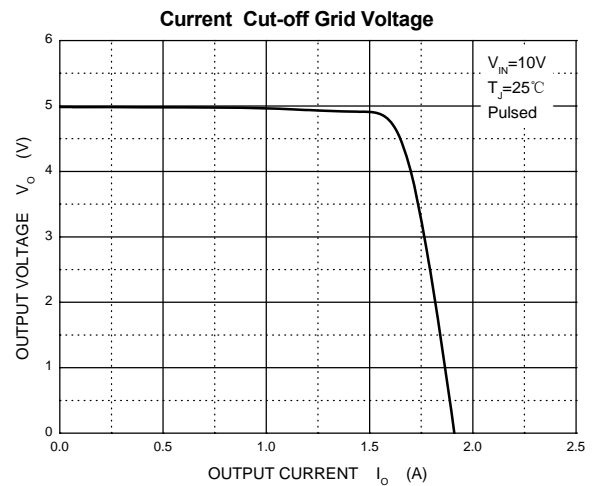
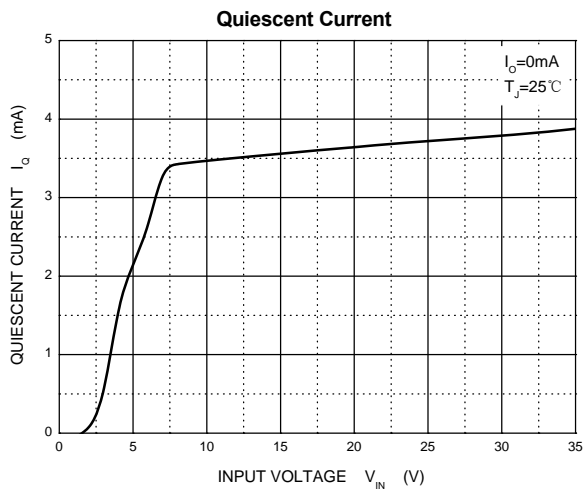
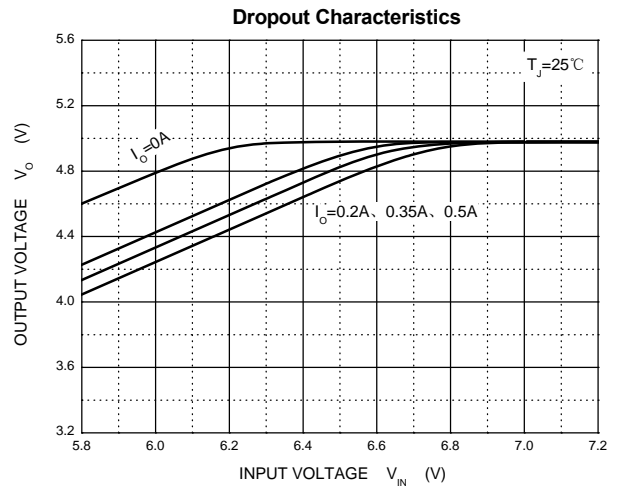
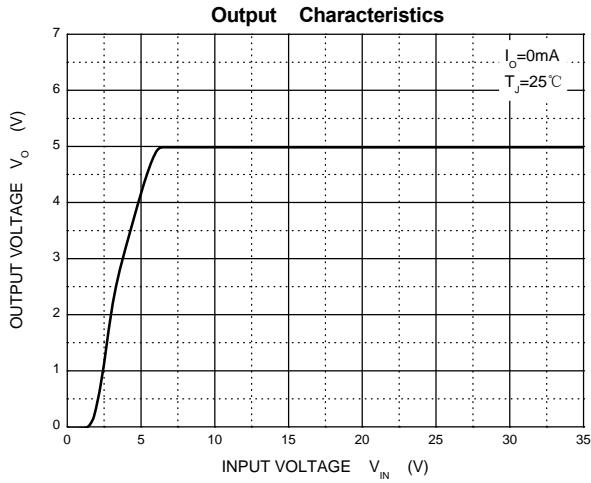
### Electrical Characteristics

78D05L ( $V_{IN} = 10V$ ,  $I_{OUT} = 350mA$ ,  $C_{IN} = 0.33\mu F$ ,  $C_{OUT} = 0.1\mu F$ ,  $T_J = 25^\circ C$ , unless otherwise specified)

CHARACTERISTIC	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Output voltage	$V_{OUT}$	-	4.85	5.00	5.15	V
		$V_{IN} = 7$ to 20V, $I_{OUT} = 5$ to 350mA	4.75	5.00	5.25	
Line regulation	LNR	$V_{IN} = 7$ to 25V, $I_{OUT} = 200mA$	-	3.0	100	mV
		$V_{IN} = 8$ to 25V, $I_{OUT} = 200mA$	-	1.0	50	
Load regulation	LDR	$I_{OUT} = 5$ to 500mA	-	15	100	mV
		$I_{OUT} = 5$ to 200mA	-	5.0	50	
Quiescent current	$I_Q$	-	-	4.2	6.0	mA
Quiescent current change	$\Delta I_Q$	$V_{IN} = 8$ to 25V, $I_{OUT} = 200mA$	-	-	0.8	mA
		$I_{OUT} = 5$ to 350mA	-	-	0.5	
Output noise voltage	$V_N$	$f = 10$ to 100kHz	-	40	200	$\mu V$
Ripple rejection	RR	$V_{IN} = 8$ to 18V, $I_{OUT} = 300mA$ , $f = 120Hz$	62	80	-	dB
Dropout voltage	$V_D$	$I_{OUT} = 350mA$	-	2.0	2.5	V
Short circuit current	$I_{SC}$	$V_{IN} = 10V$ , OUT short to GND	-	300	-	mA
Peak current	$I_{Peak}$	-	-	0.5	-	A



### Typical Characteristics







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