



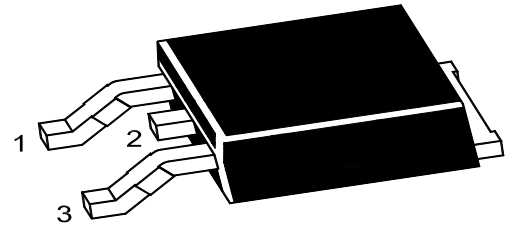
# PJ7805TE

## 3-Terminal Voltage Regulator

### Features

- Internal Short Circuit Current Limiting
- Internal Thermal Overload Protection
- Output Current in Excess of 1A

TO-252

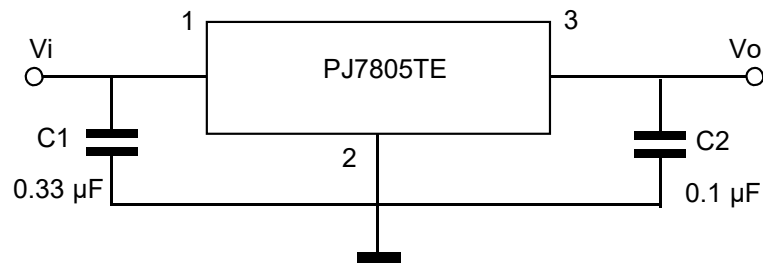


1. IN 2. GND 3. OUT

### Maximum Ratings

Ratings at  $T_A = 25^\circ\text{C}$  ambient temperature unless otherwise specified.

Parameter	Symbols	Value	Units
Input Voltage	$V_I$	35	V
Output Current	$I_o$	1	A
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Operating Temperature Range	$T_{OPR}$	-40~125	$^\circ\text{C}$
Power Dissipation	$P_D$	1.25	W
Storage Temperature Range	$T_{STG}$	-55~150	$^\circ\text{C}$

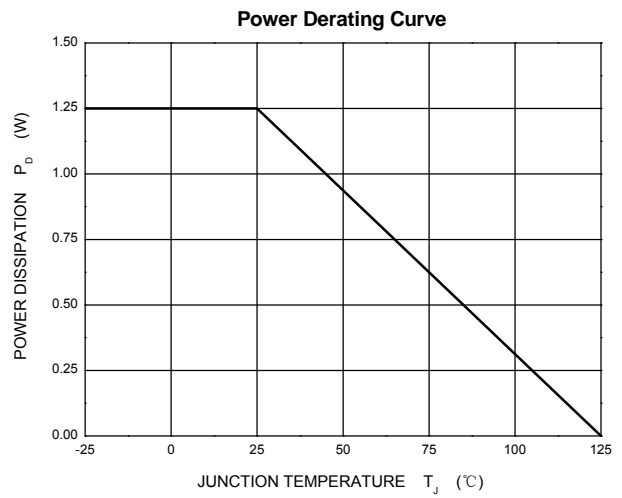
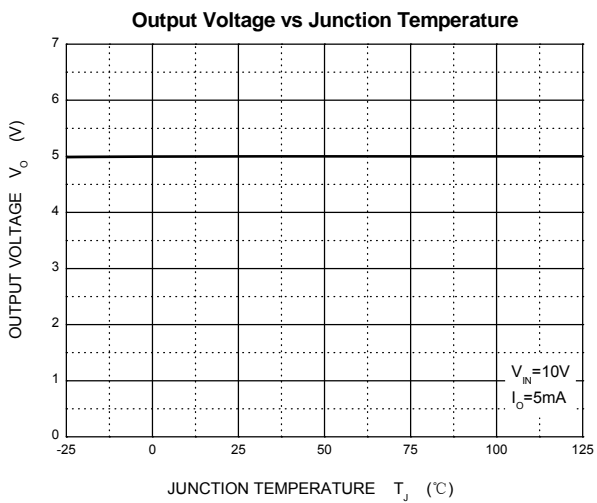
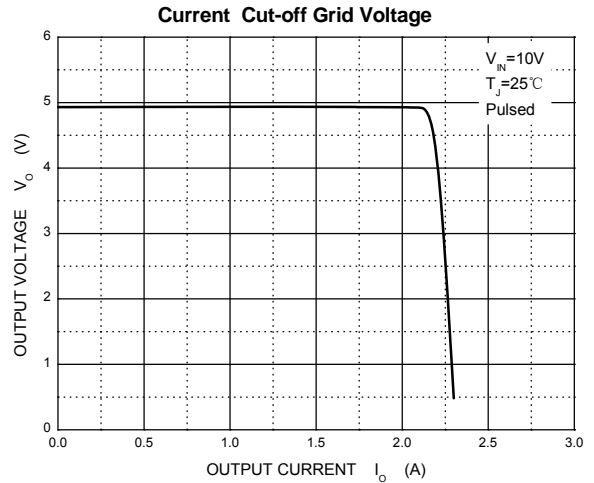
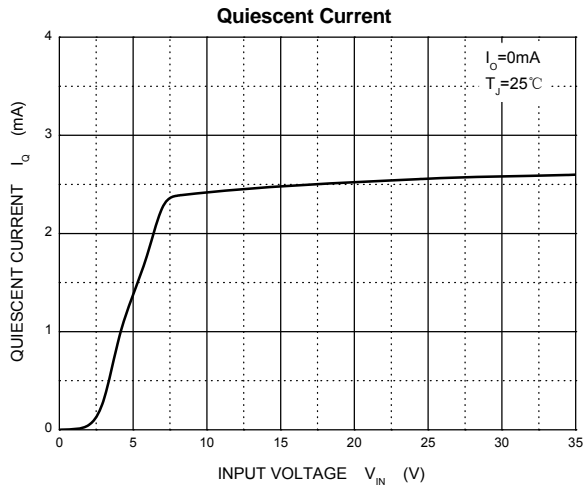
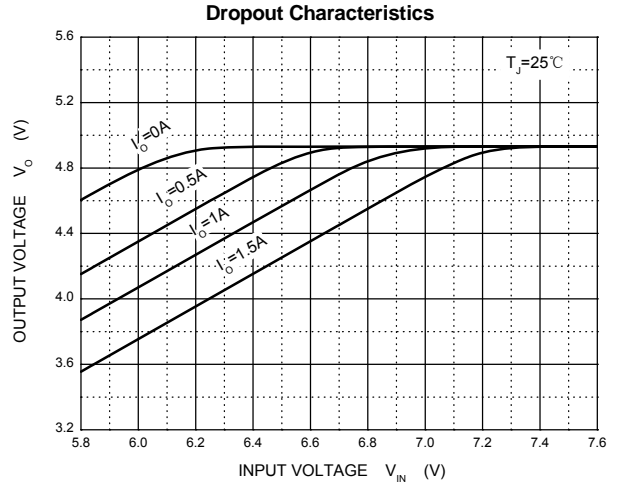
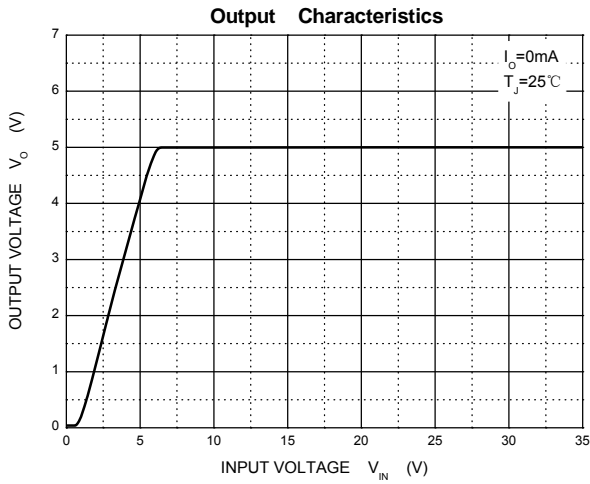


**Electrical Characteristics**Ratings at  $T_J = 25^\circ\text{C}$ ,  $V_I = 10\text{V}$ ,  $I_O = 500\text{mA}$ ,  $C_i = 0.33\mu\text{F}$ ,  $C_o = 0.1\mu\text{F}$ , unless otherwise specified.

Parameter	Symbols	Test Conditions	Min	Typ	Max	Unit
Output Voltage	$V_O$	$T_J = 25^\circ\text{C}$	4.8	5	5.2	V
		$V_I = 7\text{V to } 20\text{V}$ , $I_O = 5\text{mA to } 1\text{A}$	4.75	5	5.25	
Input Regulation	$\Delta V_O$	$V_I = 7\text{V to } 25\text{V}$ , $T_J = 25^\circ\text{C}$		4	100	mV
		$V_I = 8\text{V to } 12\text{V}$ , $T_J = 25^\circ\text{C}$		1.6	50	mV
Output Regulation	$\Delta V_O$	$I_O = 5\text{mA to } 1.5\text{A}$ , $T_J = 25^\circ\text{C}$		9	100	mV
		$I_O = 250\text{mA to } 750\text{mA}$ , $T_J = 25^\circ\text{C}$		4	50	mV
Ripple Rejection	RR	$V_I = 8\text{V to } 18\text{V}$ , $T_J = 25^\circ\text{C}$ $f = 120\text{Hz}$	62	73		dB
Output Noise Voltage	$V_N$	$f = 10\text{Hz} \sim 100\text{KHz}$ , $T_J = 25^\circ\text{C}$		50		$\mu\text{V}$
Dropout Voltage	$V_D$	$T_J = 25^\circ\text{C}$ , $I_O = 1\text{A}$		2		V
Quiescent Current	$I_Q$	$T_J = 25^\circ\text{C}$		5	8	mA
Quiescent Current Change	$\Delta I_Q$	$I_O = 5\text{mA to } 1\text{A}$			0.5	mA
		$V_I = 7\text{V to } 25\text{V}$			1.3	
Short Circuit Current Limit	$I_{SC}$	$T_J = 25^\circ\text{C}$		230		mA



### Ratings and Characteristic Curves





# PJ7805TE

## 3-Terminal Voltage Regulator

### Package Outline

TO-252

Dimensions in mm

