



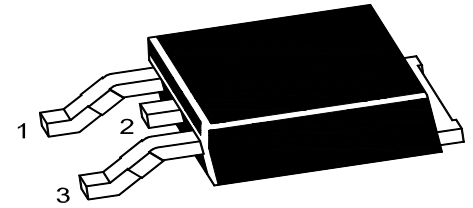
PJ7805TE

3-Terminal Voltage Regulator

Description

The PJ7805TE is a kind of three-terminal positive regulators, It is available in TO-252 package and with 5V fixed output voltage, making it useful in a wide range of application. The PJ7805TE employs internal current limiting, thermal shut-down and safe area protection, making it essentially indestructible. If adequate heat sinking is provided ,It can deliver over 1.5A output current, Although designed as fixed voltage regulator, This device can be used with external components to obtain adjustable voltage and currents.

TO-252



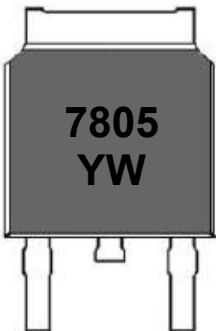
1. VIN 2. GND 3. VOUT

Features

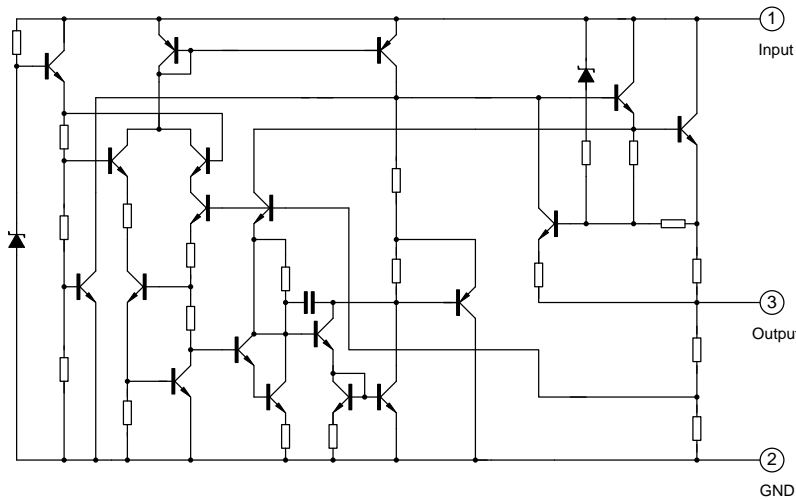
- Input voltage: up to 35V
- Output voltage: 5V
- Output current up to 1.5 A, internal thermal overload protection and short-circuit current limiting.

Applications

- DC motor drivers
- Household electric appliances
- Industrial power supplies
- Test and measurement equipment

		Marking code									
			7805 YW	7805: Product code							
Y: Year code	2022			2023	2024	2025	2026	2027	2028	2029	2030
	G		H	J	K	A	B	C	D	E	F
W: Week code	Weeks		1~26			27~52			53		
	code		A~Z			a~z			z		

Function Block Diagram



Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Input Voltage	V_I	35	V
Power Dissipation	P_D	1.25	W
Thermal Resistance, Junction-to-Air	$R_{\theta JA}$	100	°C/W
Operating Temperature Range	T_{OPR}	-40 to +125	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C



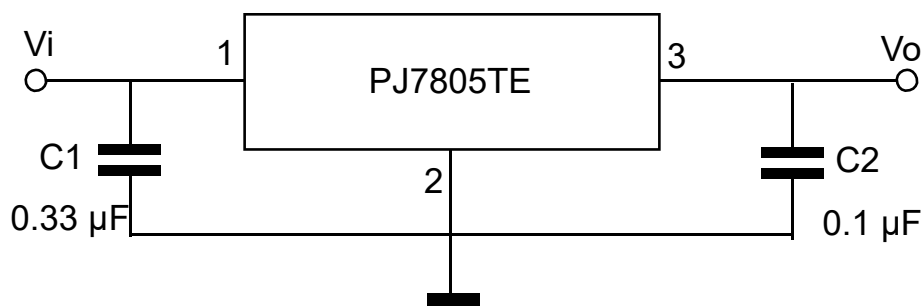
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Electrical Characteristics

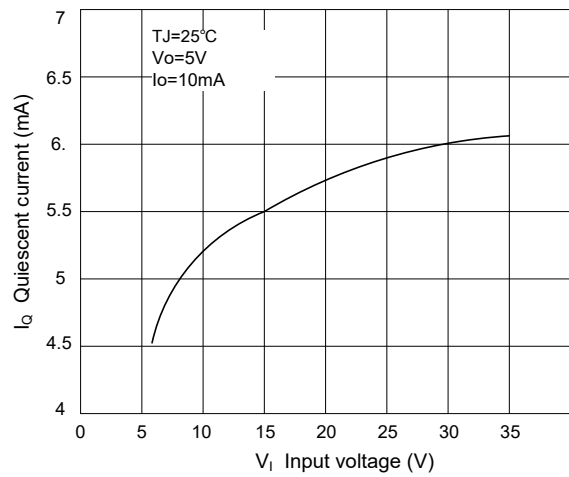
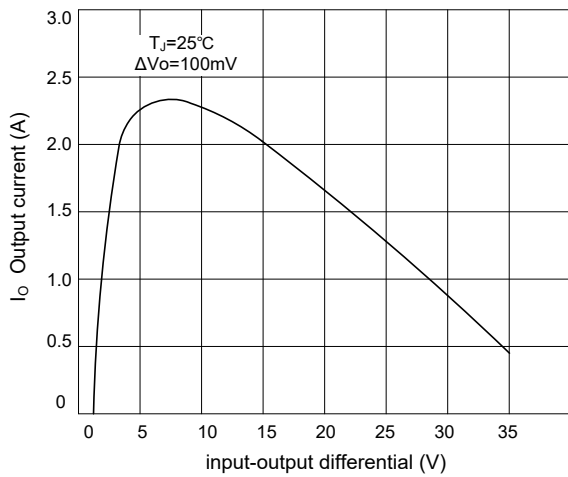
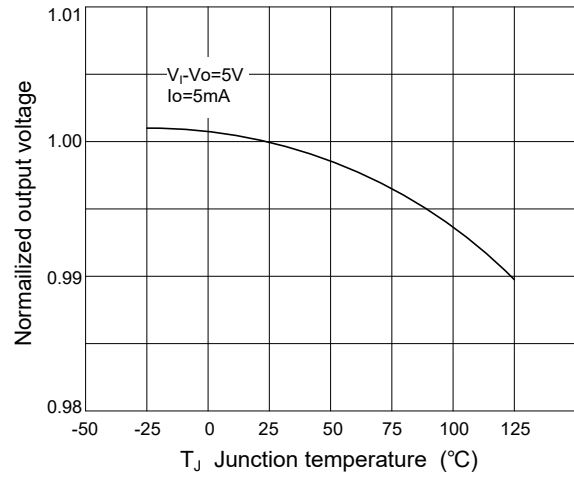
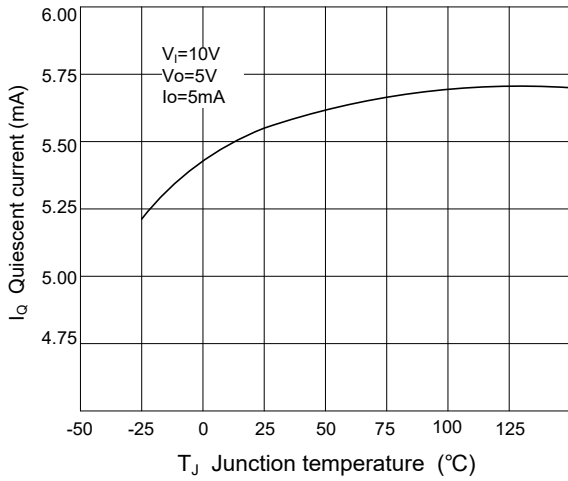
Ratings at $V_i=10V, I_o=500mA, C_1=0.33\mu F, C_o=0.1\mu F, 0 < T_J < 125^\circ C$, unless otherwise specified.

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Output Voltage	V_o	$T_J=25^\circ C$	4.8	5.0	5.2	V
		$5.0mA < I_o < 1.0A, P_D < 15W$ $V_i=7.5V$ to $20V$	4.75	5.0	5.25	V
Line Regulation	ΔV_o	$T_J=25^\circ C, V_i=7.5V$ to $25V$	--	--	100	mV
		$T_J=25^\circ C, V_i=8V$ to $12V$	--	--	50	mV
Load Regulation	ΔV_o	$T_J=25^\circ C, I_o=5mA$ to $1.5A$	--	--	100	mV
		$T_J=25^\circ C, I_o=250mA$ to $750mA$	--	--	50	mV
Ripple Rejection	RR	$V_i=8V$ to $18V, f=120Hz$	62	73	--	dB
Dropout Voltage	V_{DROP}	$T_J=25^\circ C, I_o=1A$	--	2	--	V
Quiescent Current	I_q	$T_J=25^\circ C$	--	--	8	mA
Quiescent Current Change	ΔI_q	$I_o=5mA$ to $1.5A$	--	--	0.5	mA
		$V_i=8V$ to $25V$	--	--	0.8	mA
Output Voltage Drift	$\Delta V_o/\Delta T$	$I_o=5mA$	--	0.8	--	mV/ $^\circ C$
Output Noise Voltage	V_N	$T_A=25^\circ C, 10Hz \leq f \leq 100KHz$	--	42	--	μV
Output Resistance	R_o	$f=1KHz$	--	15	--	m Ω
Short Circuit Current	I_{sc}	$T_A=25^\circ C, V_i=35V$	--	230	--	mA
Peak Current	I_{PK}	$T_J=25^\circ C$	--	2.2	--	A





Typical Characteristic Curves





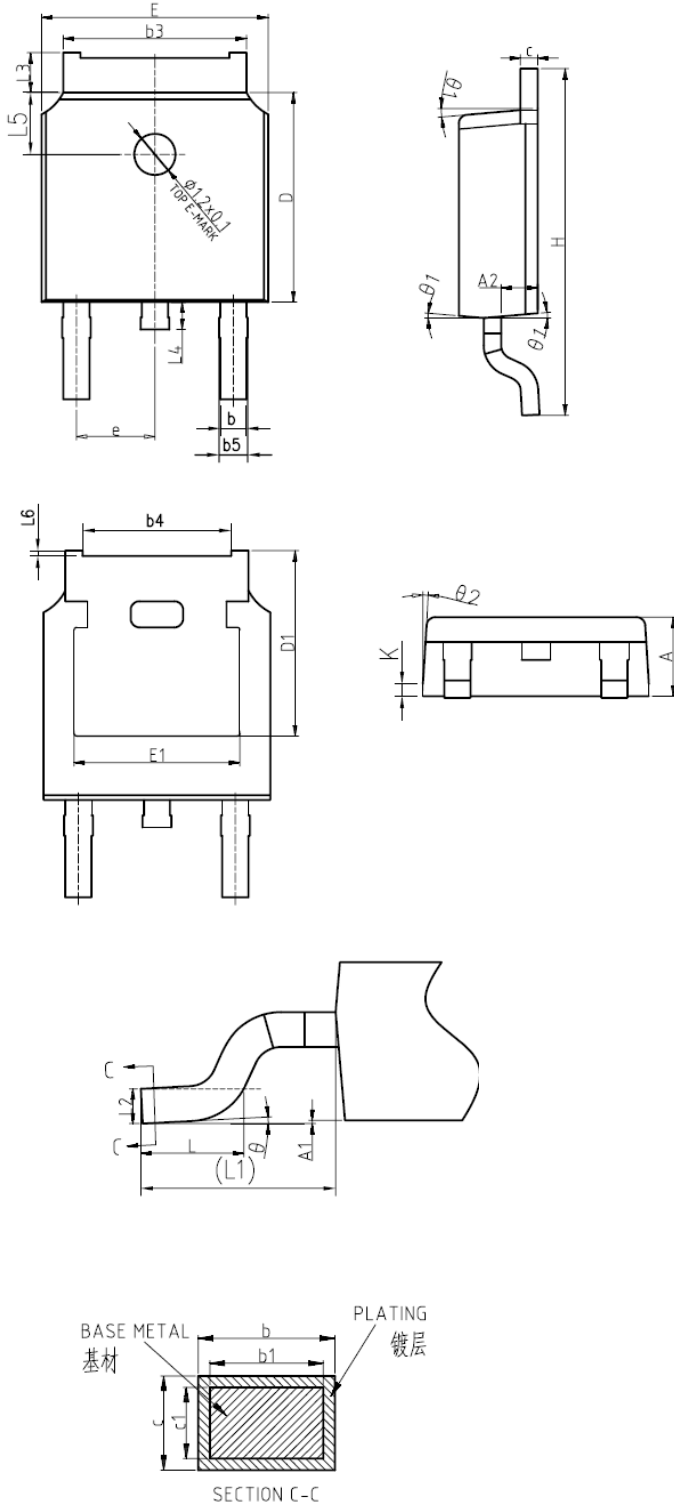
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Package Outline

TO-252

Dimensions in mm



Symbol	mm		
	Min.	Nom.	Max.
*A	2.20	2.30	2.38
*A1	0.00	--	0.10
A2	0.97	1.07	1.17
*b	0.72	0.78	0.85
b1	0.71	0.76	0.81
*b3	5.23	5.33	5.46
b4	4.27	4.32	4.37
b5	0.72	0.88	0.93
*c	0.47	0.53	0.58
c1	0.46	0.51	0.56
*D	6.00	6.10	6.20
D1	5.30REF		
*E	6.50	6.60	6.70
E1	4.70	4.83	4.92
*e	2.286BSC		
*H	9.90	10.10	10.30
L	1.40	1.50	1.70
L1	2.90REF		
L2	0.51BSC		
*L3	0.90	--	1.25
*L4	0.60	0.80	1.00
L5	1.70	1.80	1.90
L6	0	0.047	0.123
θ	0°	--	8°
*θ1	5°	7°	9°
θ2	5°	7°	9°
K	0.40REF		
带*为检验尺寸			

Ordering Information

Device	Package	Shipping
PJ7805TE	TO-252	2,500PCS/Reel&13inches