



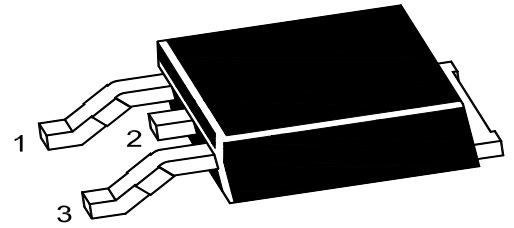
PJ7812TE

3-Terminal Voltage Regulator

Features

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

TO-252

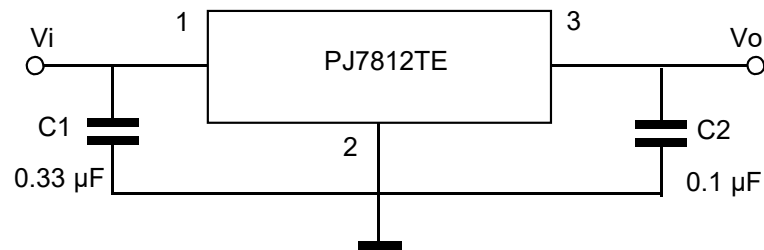


1. IN 2. GND 3. OUT

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	$^\circ\text{C}$





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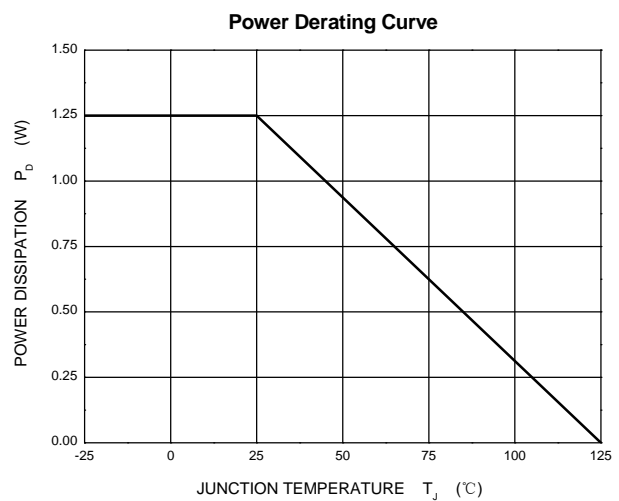
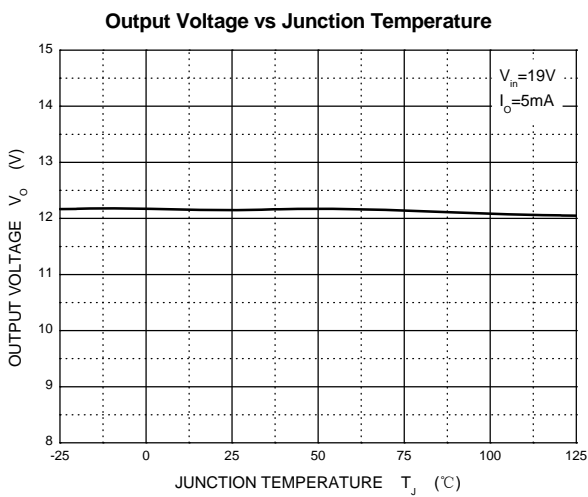
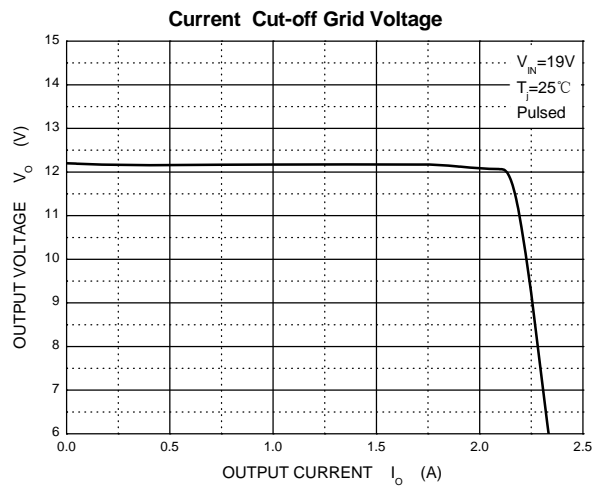
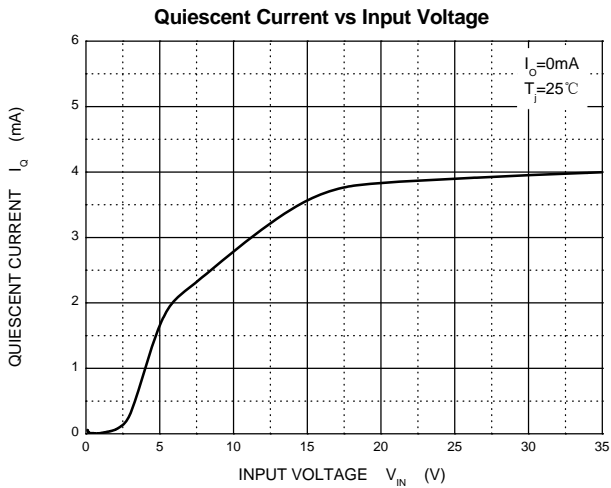
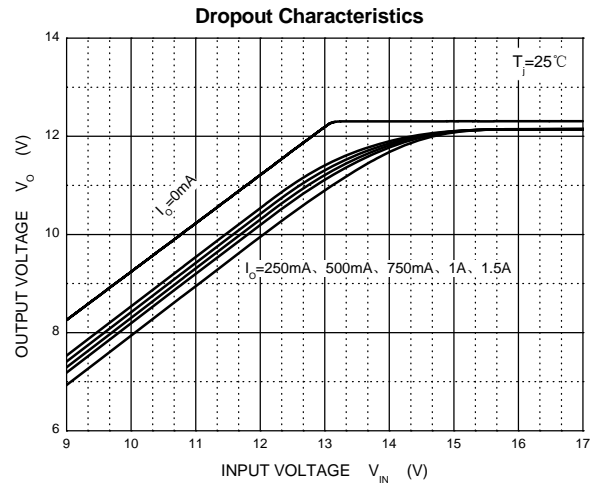
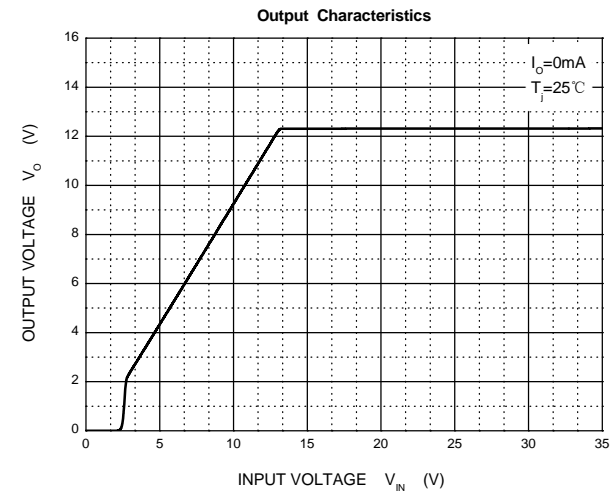
Electrical Characteristics

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	$T_J = 25^\circ\text{C}$	11.5	12	12.5	V
		$V_I = 14.5\text{V to } 27\text{V}$, $I_O = 5\text{mA to } 1\text{A}$	11.4	12	12.6	
Input Regulation	ΔV_O	$V_I = 14.5\text{V to } 30\text{V}$, $T_J = 25^\circ\text{C}$		12	240	mV
		$V_I = 16\text{V to } 22\text{V}$, $T_J = 25^\circ\text{C}$		4	120	mV
Output Regulation	ΔV_O	$I_O = 5\text{mA to } 1.5\text{A}$, $T_J = 25^\circ\text{C}$		10	240	mV
		$I_O = 250\text{mA to } 750\text{mA}$, $T_J = 25^\circ\text{C}$		3	120	mV
Ripple Rejection	RR	$V_I = 15\text{V to } 25\text{V}$, $T_J = 25^\circ\text{C}$ $f = 120\text{Hz}$	55	71		dB
Output Noise Voltage	V_N	$f = 10\text{Hz} \sim 100\text{KHz}$, $T_J = 25^\circ\text{C}$		75		μV
Dropout Voltage	V_D	$T_J = 25^\circ\text{C}$, $I_O = 1\text{A}$		2		V
Quiescent Current	I_Q	$T_J = 25^\circ\text{C}$		4.3	8	mA
Quiescent Current Change	ΔI_Q	$I_O = 5\text{mA to } 1\text{A}$			0.5	mA
		$V_I = 14.5\text{V to } 30\text{V}$			1	
Short Circuit Current Limit	I_{SC}	$T_J = 25^\circ\text{C}$		350		mA



Ratings and Characteristic Curves





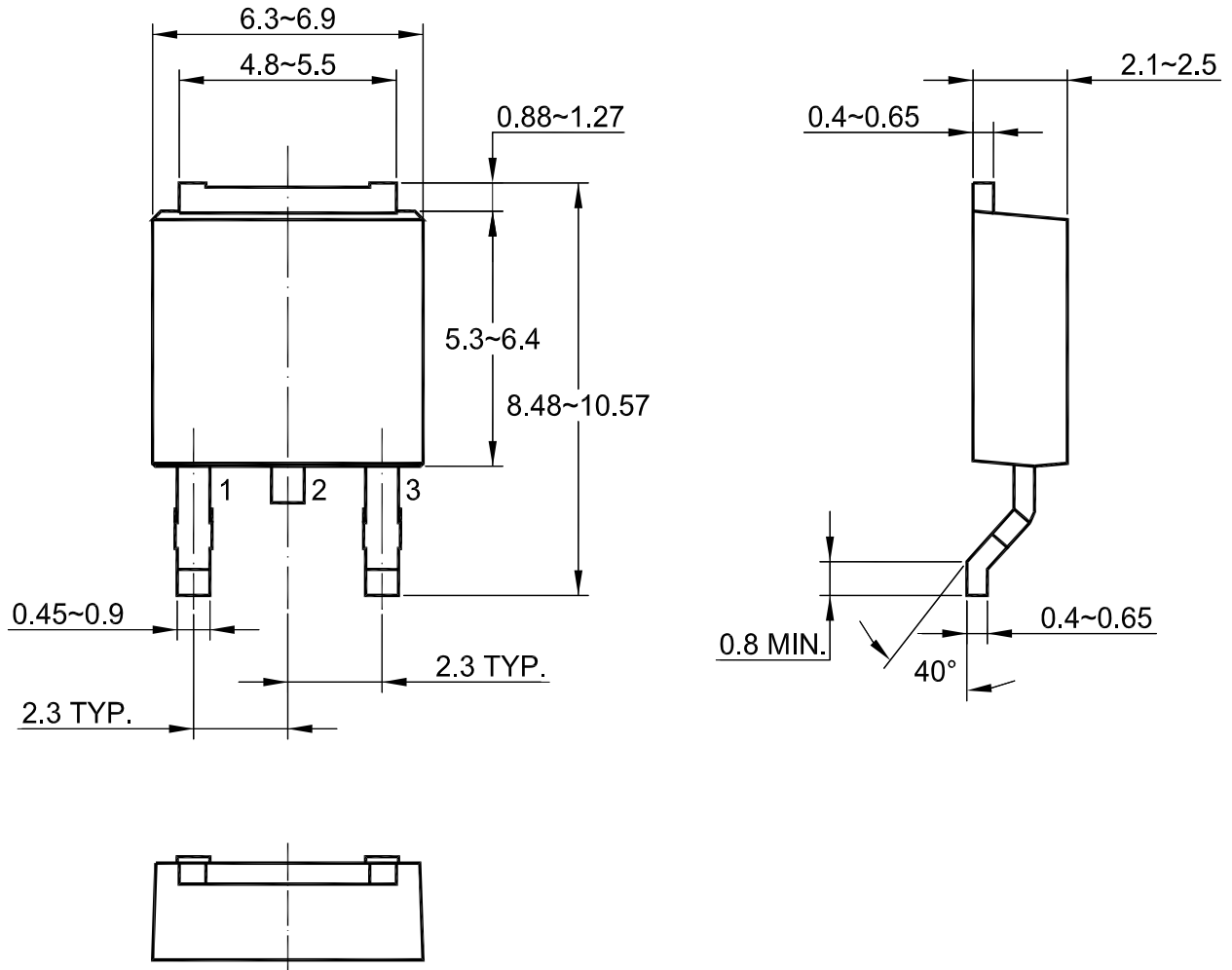
PJ7812TE

3-Terminal Voltage Regulator

Package Outline

TO-252

Dimensions in mm



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