Three-terminal Positive Voltage Regulator

FEATURES

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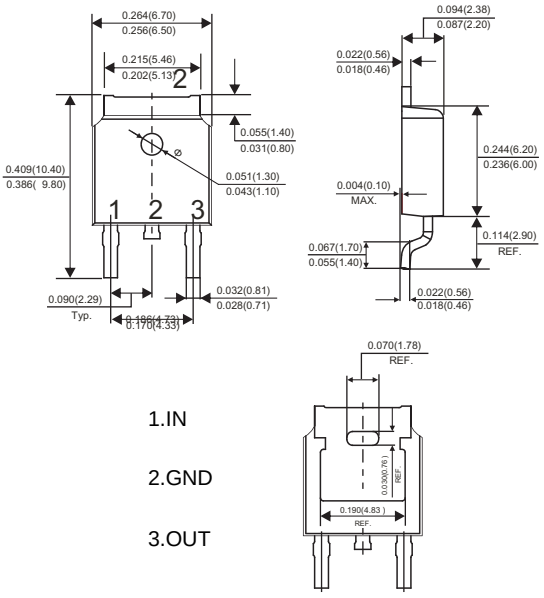
- Maximum output current
  I_{OM}: 1.2A
- Output voltage
  V_O: 12 V
- Continuous total dissipation
  P_D: 1.5W (T_a= 25 ℃)

TO-252



1.IN

2.GND

3.OUT

Dimensions in millimeters

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	66.7	℃/W
Operating Junction Temperature Range	T_{OPR}	-40~+125	℃
Storage Temperature Range	T_{STG}	-65~+150	℃

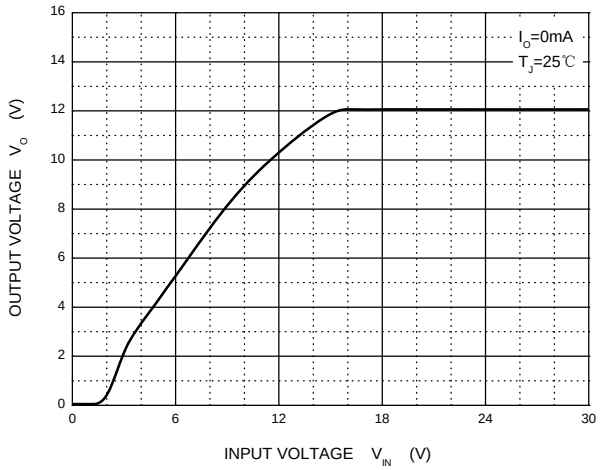
ELECTRICAL CHARACTERISTICS (Vi=19V,Io=350mA, Ci=0.33μF,Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output Voltage	Vo		25℃	11.5	12	12.5	V
		14.5≤V_i≤27V, Io=5mA-500mA	-25-125℃	11.4	12	12.6	V
Load Regulation	ΔVo	Io=5mA-800mA	25℃		25	240	mV
		Io=5mA-500mA	25℃		10	120	mV
Line Regulation	ΔVo	14.5V≤V_i≤30V, Io=500mA	25℃		10	100	mV
		16V≤V_i≤30V, Io=500mA	25℃		3	50	mV
Quiescent Current	Iq		25℃		4.6	6	mA
Quiescent Current Change	ΔIq	14.5V≤V_i≤30V, Io=500mA	-25-125℃			0.8	mA
	ΔIq	5mA≤I_O≤350mA	-25-125℃			0.5	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25℃		75		μV/Vo
Ripple Rejection	RR	15≤V_i≤25V,f=120Hz,Io=800mA	-25-125℃	55	80		dB
Dropout Voltage	Vd	Io=800mA	25℃		2		V
Short Circuit Current	Isc	Vi=19V	25℃		240		mA
Peak Current	Ipk		25℃		1.2		A

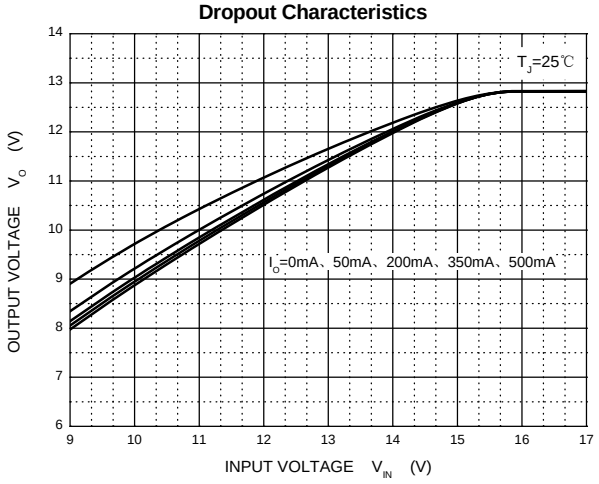
* Pulse test.

Typical Characteristics

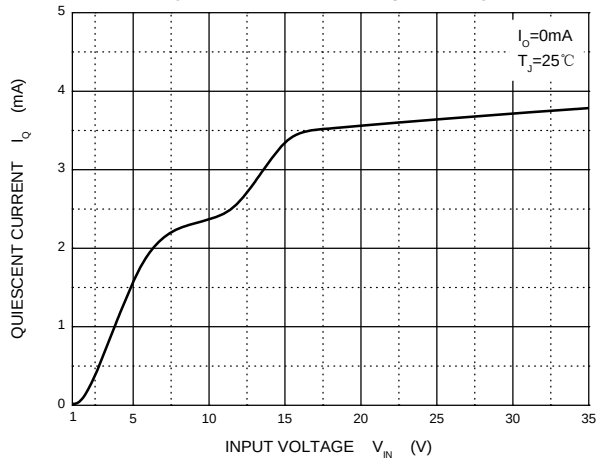
Output Characteristics



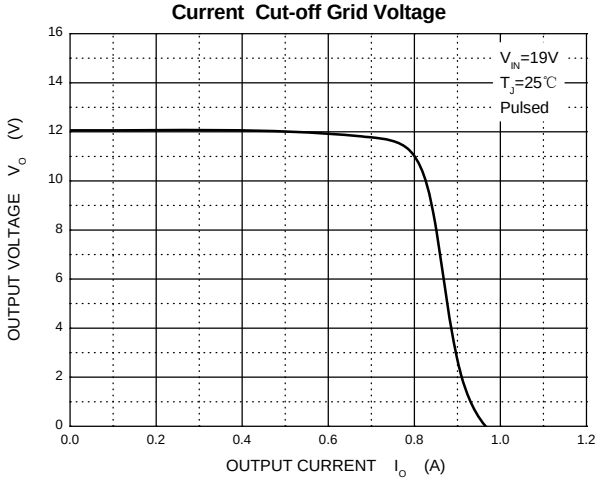
Dropout Characteristics



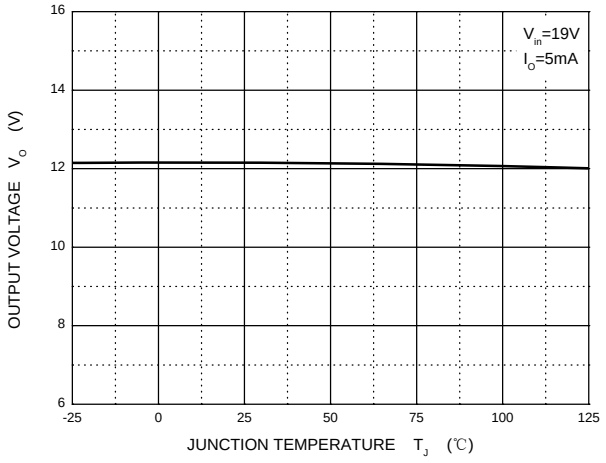
Quiescent Current vs Input Voltage



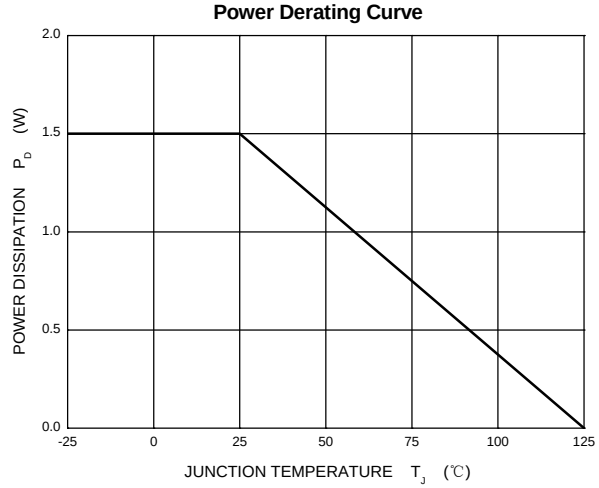
Current Cut-off Grid Voltage



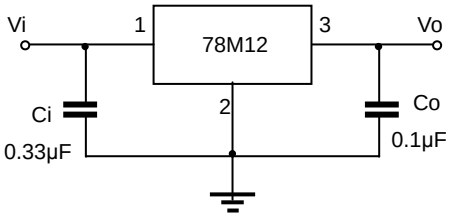
Output Voltage vs Junction Temperature



Power Derating Curve



TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as