HFZT

78M15

Three-terminal positive voltage regulator

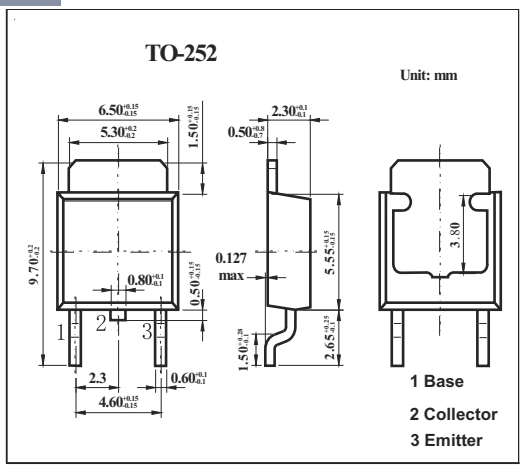
FEATURES

- ●Maximum output current IOM: 0.5 A
- ●Output voltageVO: 15V
- ●Continuous total dissipation

P_D: 1.25 W (T a= 25 ℃)

MECHANICAL DATA

- ●Case: TO-252 Small Outline Plastic Package
- ●Polarity: Color band denotes cathode end
- ●Mounting Position: Any



ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherw ise specified)

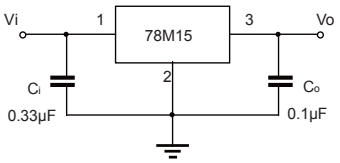
Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	℃/W
Operating Junction Temperature Range	T_{OPR}	-25~+125	℃
Storage Temperature Range	T_{STG}	-65~+150	℃

ELECTRICAL CHARACTERISTICS (Vi=23V,Io=350mA, Ci=0.33μF,Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output Voltage	Vo	V_i=23V,Io=350mA	25℃	14.4	15	15.6	V
		17.5≤V_i≤30V, Io=5mA~350mA	-25-125℃	14.25	15	15.75	V
Load Regulation	ΔVo	Io=5mA~500mA	25℃			300	mV
		Io=5mA~200mA	25℃			150	mV
Line Regulation	ΔVo	17.5V≤V_i≤30V, Io=200mA	25℃			100	mV
		20V≤V_i≤26V, Io=200mA	25℃			50	mV
Quiescent Current	Iq	V_i=23V,Io=350mA	25℃			6	mA
Quiescent Current Change	ΔIq	17.5V≤V_i≤30V, Io=200mA	-25-125℃			0.8	mA
	ΔIq	V_i=23V, Io=5mA~350mA	-25-125℃			0.5	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25℃		90		μV/Vo
Ripple Rejection	RR	18.5≤V_i≤28.5V,f=120Hz,Io=300mA	-25-125℃	54			dB
Dropout Voltage	Vd		25℃		2		V

* Pulse test.

TYPICAL APPLICATION

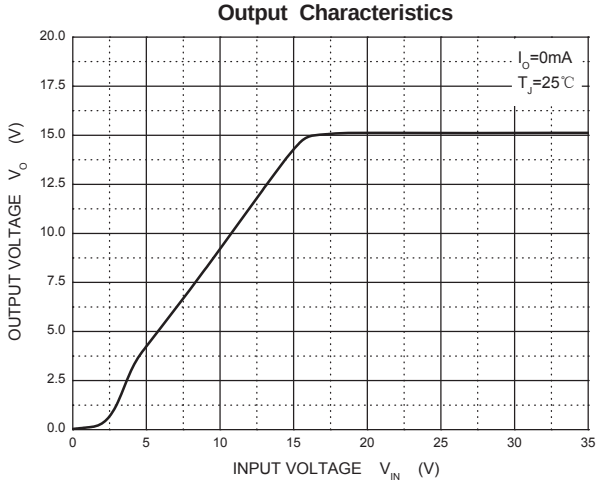


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

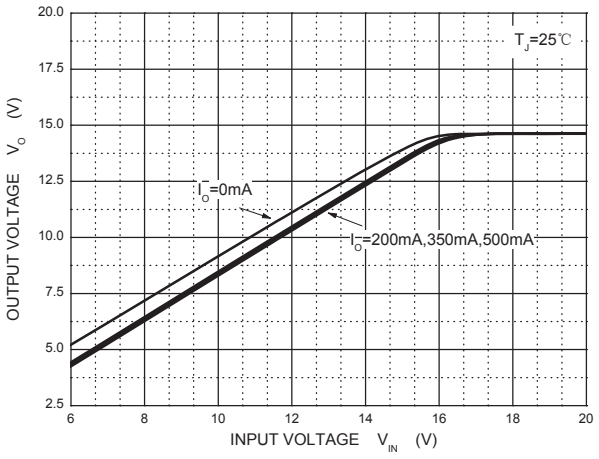
RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

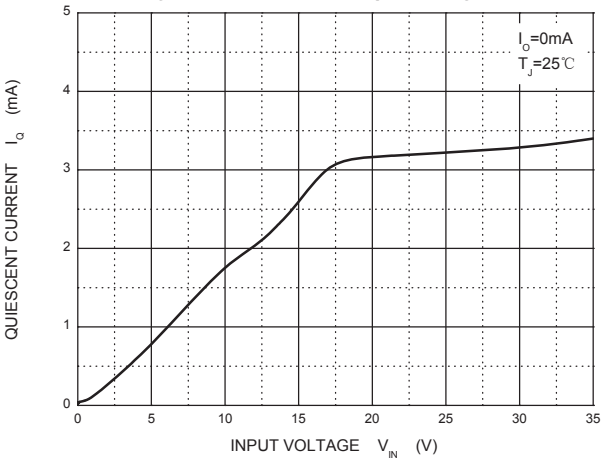
Output Characteristics



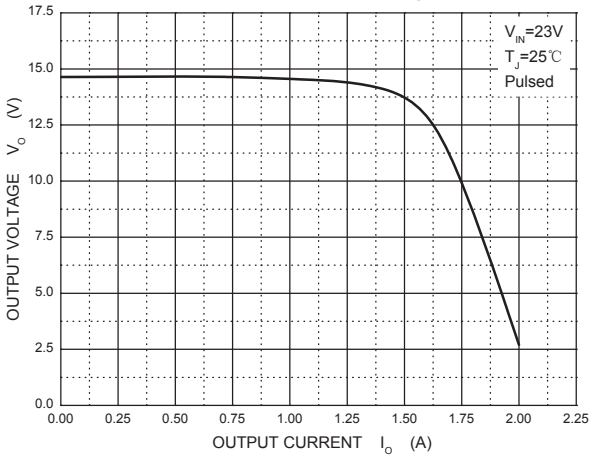
Dropout Characteristics



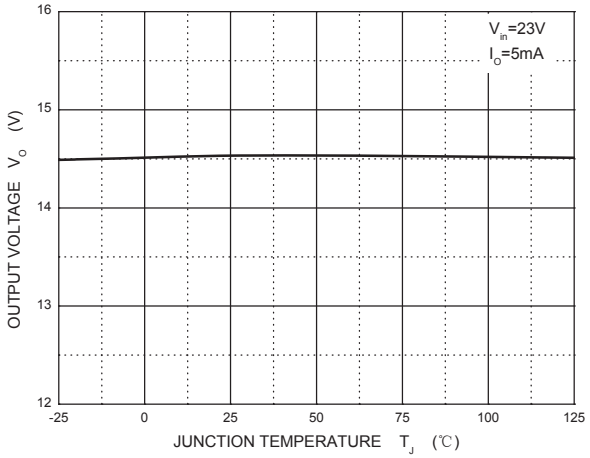
Quiescent Current vs Input Voltage



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve