

## FEATURES

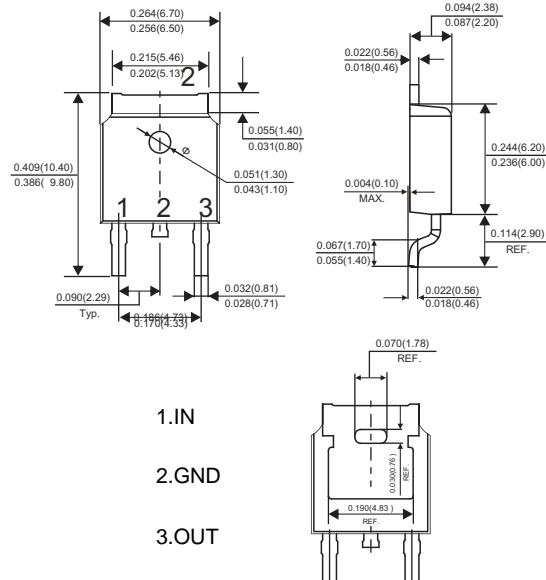
### FEATURES

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

**TO-252**

ROHS  
COMPLIANT

Pb  
Free



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	°C/W
Operating Junction Temperature Range	$T_{OPR}$	-40~+125	°C
Storage Temperature Range	$T_{STG}$	-65~+150	°C

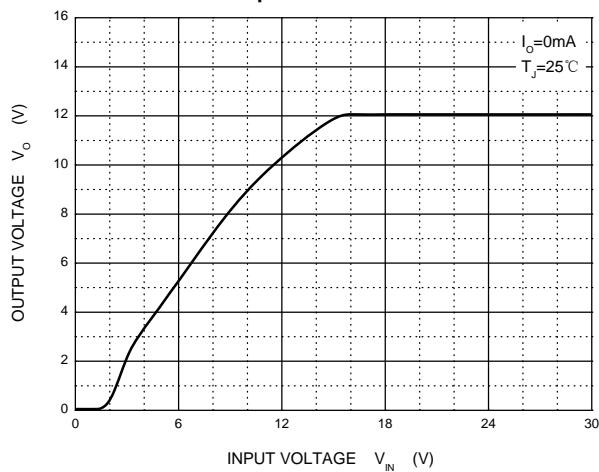
## ELECTRICAL CHARACTERISTICS ( $V_i=19V, I_o=350mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified )

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	$V_o$		25°C	11.5	12	12.5
		$14.5 \leq V_i \leq 27V, I_o = 5mA - 500mA$	-25-125°C	11.4	12	12.6
Load Regulation	$\Delta V_o$	$I_o = 5mA - 800mA$	25°C		25	mV
		$I_o = 5mA - 500mA$	25°C		10	mV
Line Regulation	$\Delta V_o$	$14.5 \leq V_i \leq 30V, I_o = 500mA$	25°C		10	mV
		$16V \leq V_i \leq 30V, I_o = 500mA$	25°C		3	mV
Quiescent Current	$I_q$		25°C		4.6	mA
Quiescent Current Change	$\Delta I_q$	$14.5V \leq V_i \leq 30V, I_o = 500mA$	-25-125°C		0.8	mA
	$\Delta I_q$	$5mA \leq I_o \leq 350mA$	-25-125°C		0.5	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$	25°C		75	$\mu V/V_o$
Ripple Rejection	RR	$15 \leq V_i \leq 25V, f = 120Hz, I_o = 800mA$	-25-125°C	55	80	dB
Dropout Voltage	$V_d$	$I_o = 800mA$	25°C		2	V
Short Circuit Current	$I_{sc}$	$V_i = 19V$	25°C		240	mA
Peak Current	$I_{pk}$		25°C		1.2	A

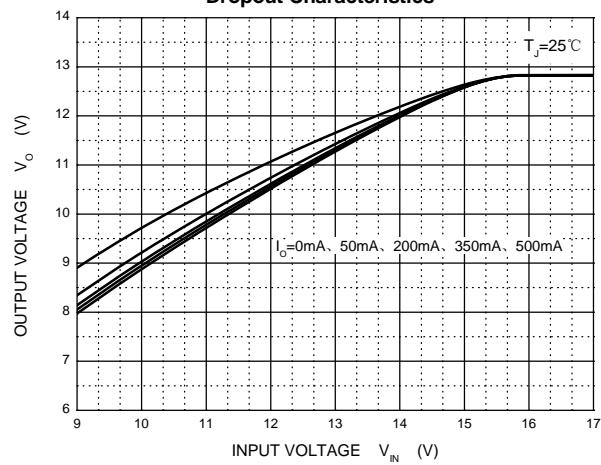
\* Pulse test.

## Typical Characteristics

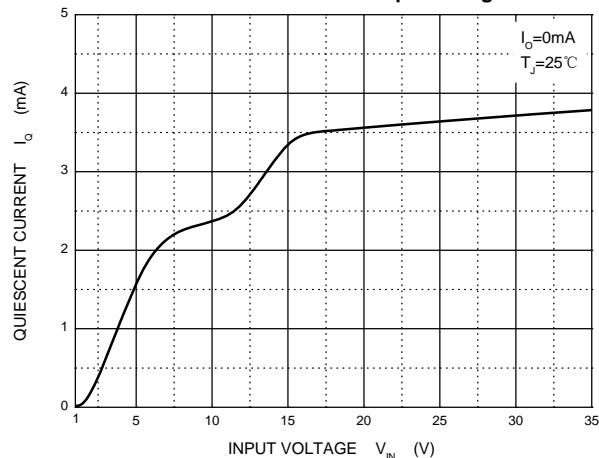
**Output Characteristics**



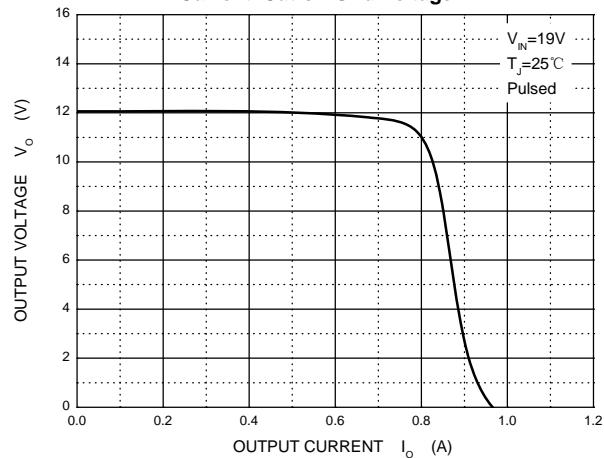
**Dropout Characteristics**



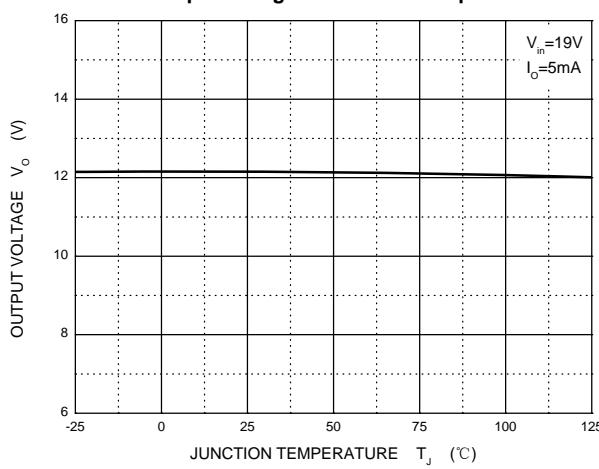
**Quiescent Current vs Input Voltage**



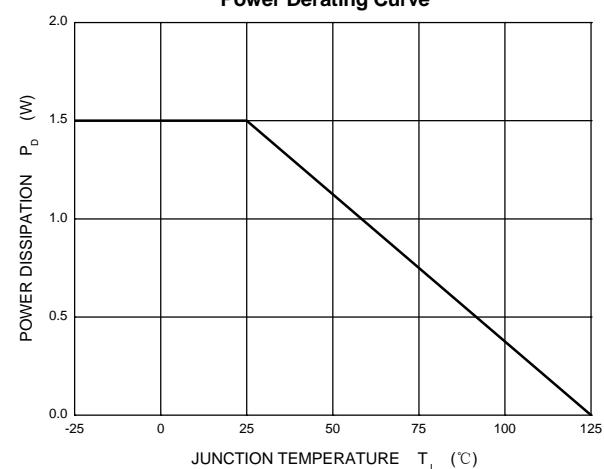
**Current Cut-off Grid Voltage**



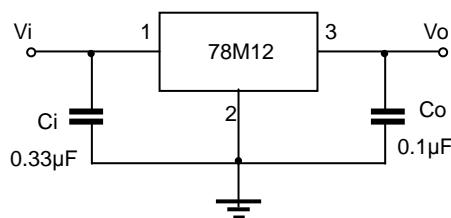
**Output Voltage vs Junction Temperature**



**Power Derating Curve**



## TYPICAL APPLICATION



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