

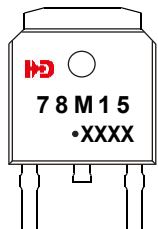
TO-252-2L Plastic-Encapsulate Voltage Regulators

Three-terminal positive voltage regulator

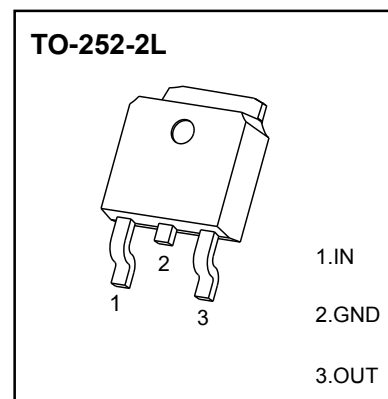
Feature

- Maximum Output current I_{om} : 1.0A
- Output Voltage V_o : 1.5V

MARKING



78M15 = Device code
 Solid dot = Green molding compound device
 if none, the normal device
 XXXX = Code



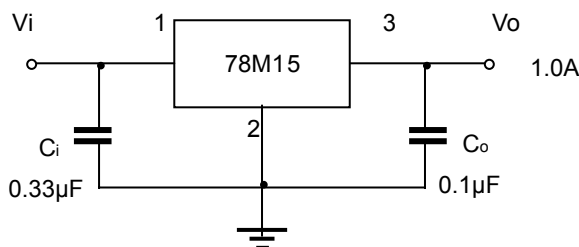
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0-+125	°C
Storage Temperature Range	T_{STG}	-65-+150	°C

ELECTRICAL CHARACTERISTICS ($V_i=23V, I_o=350mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

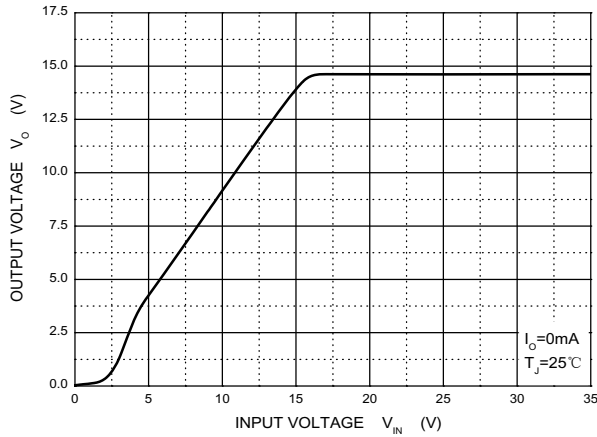
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output Voltage	V_o	$V_i=23V, I_o=350mA$	25°C	14.4	15	15.6	V
		$17.5V \leq V_i \leq 30V, I_o=5mA \sim 350mA$ $P_o \leq 15W$	0-125°C	14.25	15	15.75	V
Load Regulation	ΔV_o	$I_o=5mA \sim 500mA$	25°C			300	mV
		$I_o=5mA \sim 200mA$	25°C			150	mV
Line Regulation	ΔV_o	$17.5V \leq V_i \leq 30V, I_o=200mA$	25°C			100	mV
		$20V \leq V_i \leq 26V, I_o=200mA$	25°C			50	mV
Quiescent Current	I_q	$V_i=23V, I_o=350mA$	25°C		6	mA	
Quiescent Current Change	ΔI_q	$17.5V \leq V_i \leq 30V, I_o=200mA$	0-125°C		0.8	mA	
	ΔI_q	$V_i=23V, I_o=5mA \sim 350mA$	0-125°C		0.5	mA	
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	25°C		90	μV	
Ripple Rejection	RR	$18.5V \leq V_i \leq 28.5V, f=120Hz, I_o=300mA$	0-125°C	54		dB	
Dropout Voltage	V_d		25°C		2	V	

TYPICAL APPLICATION

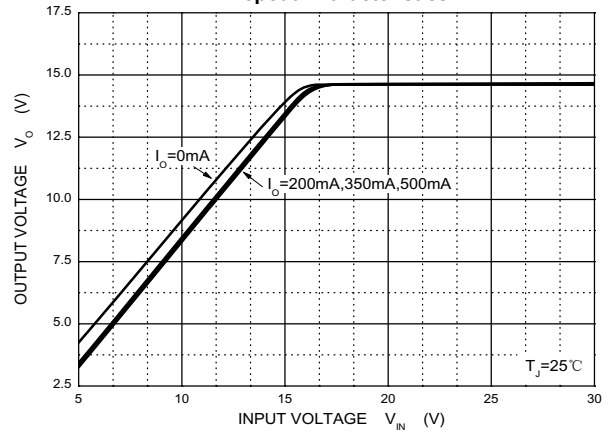


Typical Characteristics

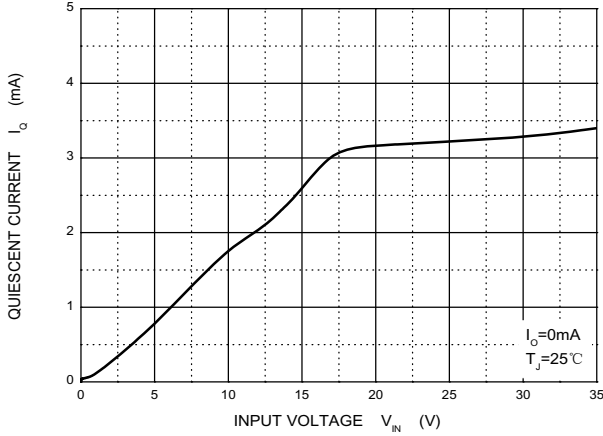
Output Characteristics



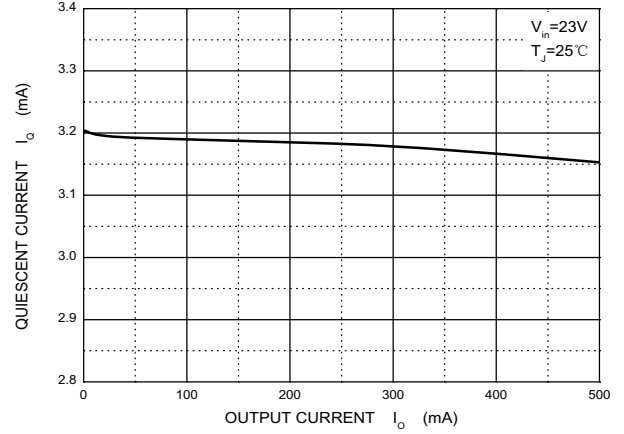
Dropout Characteristics



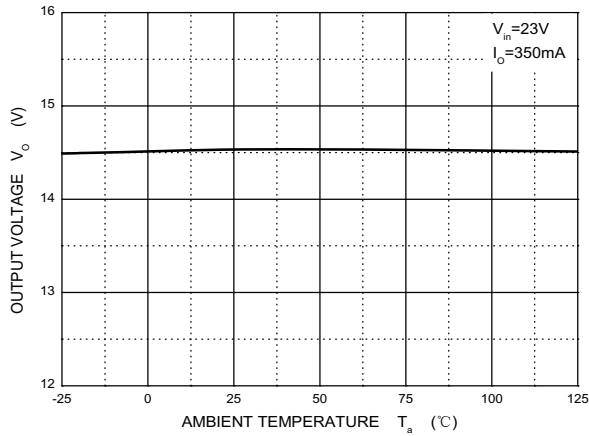
Quiescent Current vs Input Voltage



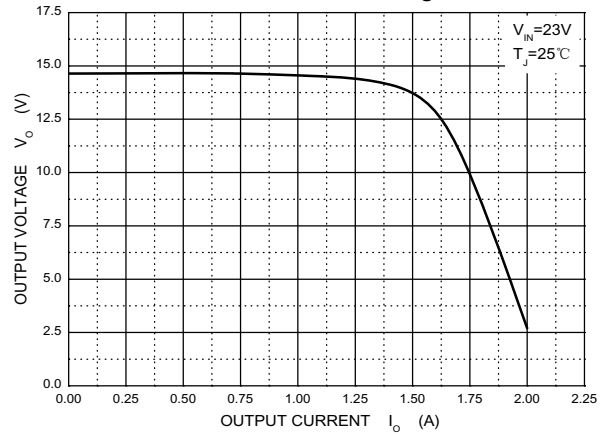
Quiescent Current vs Output Current



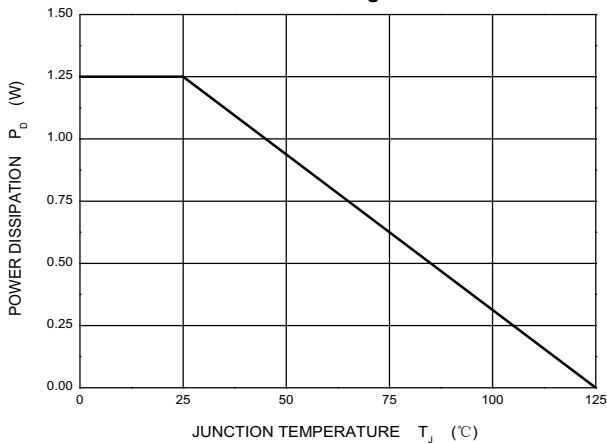
Output Voltage vs Ambient Temperature



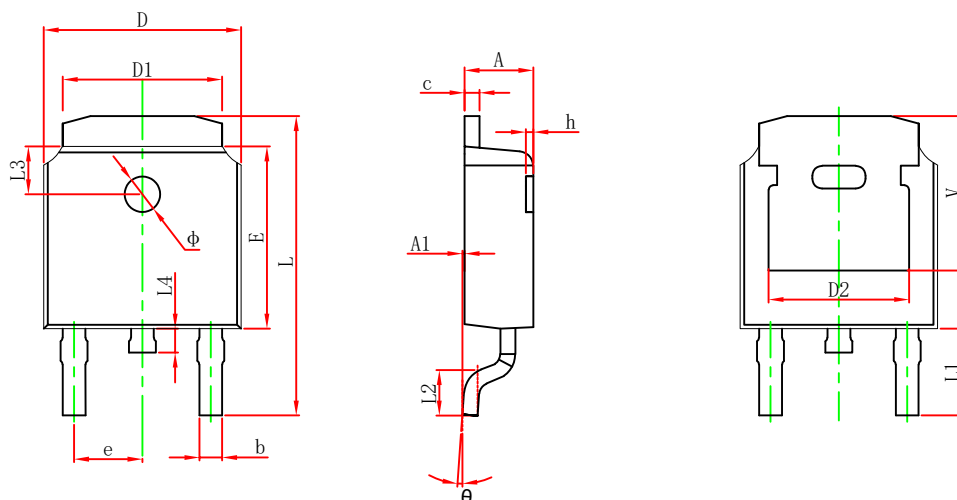
Current Cut-off Grid Voltage



Power Derating Curve

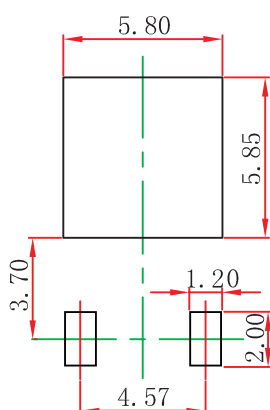


TO-252-2L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.635	0.770	0.025	0.030
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.712	10.312	0.382	0.406
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
Φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	

TO-252-2L Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

NOTICE

JSHD reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSHD does not assume any liability arising out of the application or use of any product described herein.