CHINA BASE INTERNATIONAL

SOT-23

78L15

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FEATURES

Maximum Output current I_O: 0.1 A

Output voltage V_O: 15 V

Continuous total dissipation P_D:0.35 W (Ta = 25)

1.OUT
2.IN
3.GND

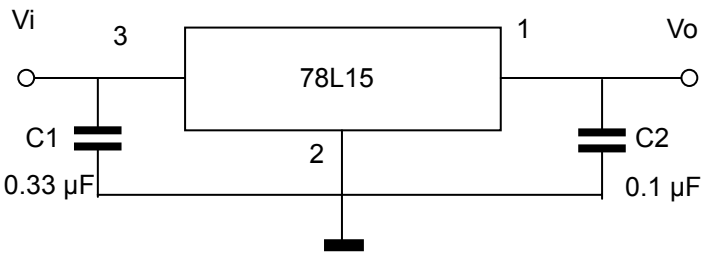
SOT-23

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies)

Parameter	Symbol	Value	Unit
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0-125	°C
Storage Temperature Range	T_{STG}	-65-150	°C

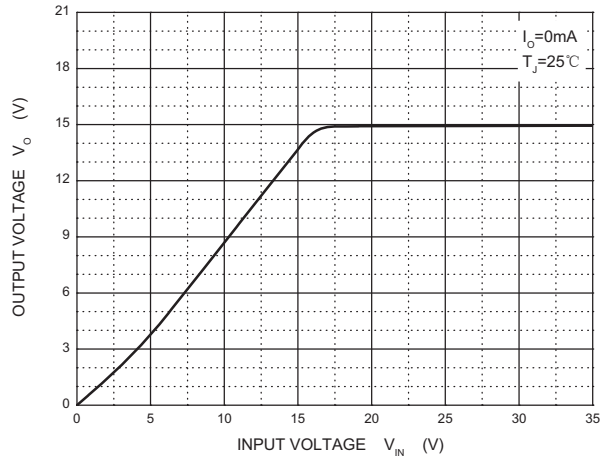
Electrical Characteristics (Unless otherwise specified, V_{IN} = 23 V, I_{OUT} = 40 mA, C_{IN} = 0.33 µF, C_{OUT} = 0.1 µF, T_j = 25 °C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Output Voltage	V_{OUT}	14.4	15	15.6	V
Output Voltage 17.5 V ≤ V_{IN} ≤ 30 V, 1 mA ≤ I_{OUT} ≤ 40 mA	V_{OUT}	14.25	-	15.75	V
Output Voltage V_{IN} = 23 V, 1 mA ≤ I_{OUT} ≤ 70 mA	V_{OUT}	14.25	-	15.75	V
Input Regulation 17.5 V ≤ V_{IN} ≤ 30 V 19 V ≤ V_{IN} ≤ 30 V	Reg. line	- -	- -	300 250	mV
Load Regulation 1 mA ≤ I_{OUT} ≤ 100 mA 1 mA ≤ I_{OUT} ≤ 40 mA	Reg. load	- -	- -	150 75	mV
Quiescent Current	I_Q	-	-	6.5	mA
Quiescent Current Change 19 V ≤ V_{IN} ≤ 30 V With line 1 mA ≤ I_{OUT} ≤ 40 mA With load	ΔI_Q	- -	- -	1.5 0.1	mA
Output Noise Voltage at T_a = 25 °C, 10 Hz ≤ f ≤ 100 KHz	V_{NO}	-	90	-	µV
Ripple Rejection at f = 120 Hz, 18.5 V ≤ V_{IN} ≤ 28.5 V, T_j = 25 °C	RR	34	-	-	dB
Dropout Voltage at T_j = 25 °C	$\lvert V_{IN}-V_{OUT} \rvert$	-	1.7	-	V

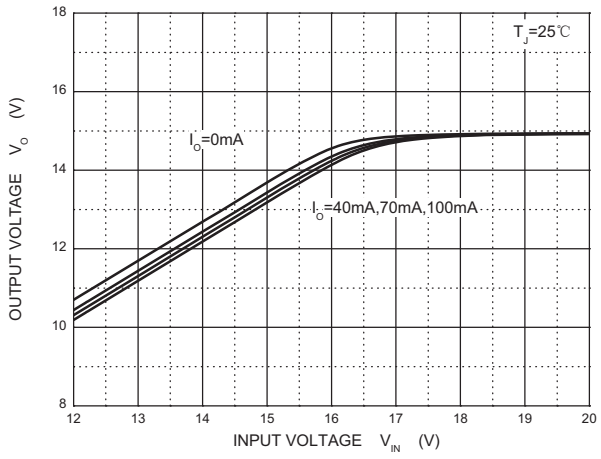


Typical Characteristics

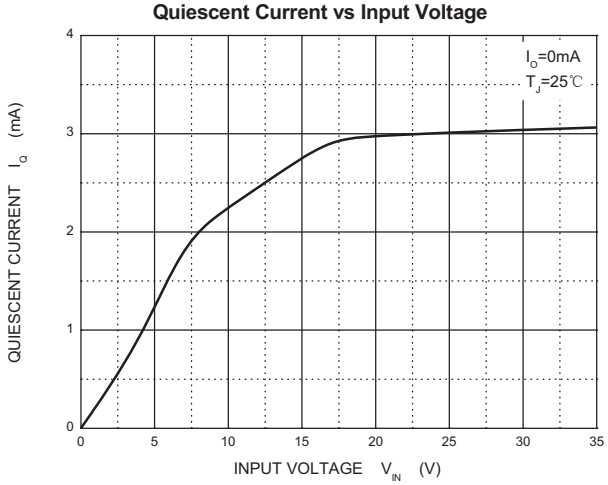
Output Characteristics



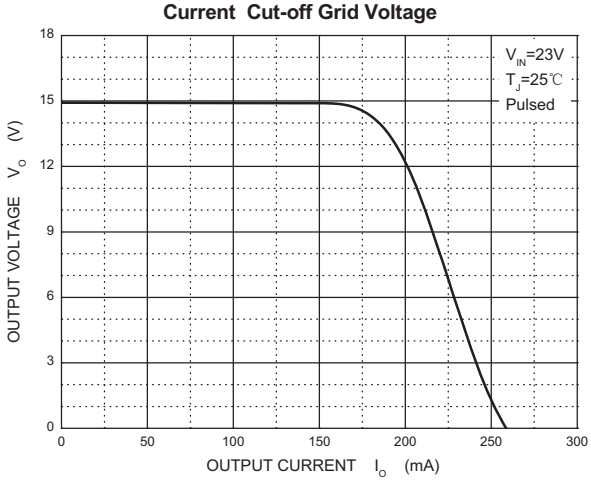
Dropout Characteristics



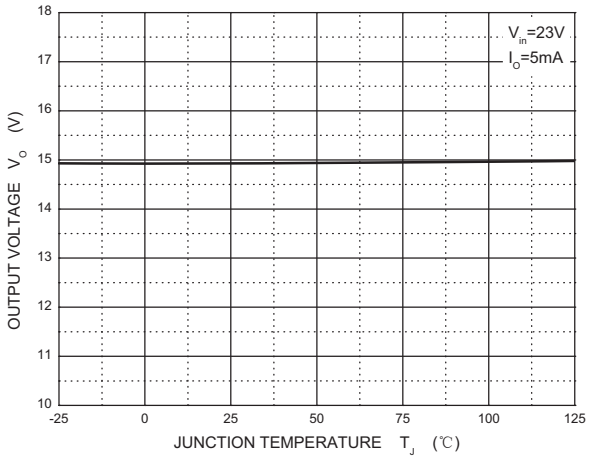
Quiescent Current vs Input Voltage



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve