

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

L7915CV(MS)

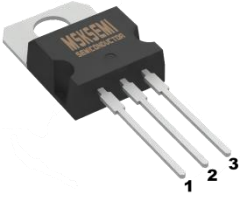

Product specification

Three-terminal positive voltage regulator

FEATURES

- Maximum Output current IOM : 1.2 A
- Output voltage Vo:-15V
- Continuous total dissipation
 P_D : 1.5 W ($T_a = 25\text{ }^\circ\text{C}$)
 15 W($T_c = 25\text{ }^\circ\text{C}$)

Reference News

PACKAGE OUTLINE	Marking
 <p>1.GND 2.IN 3.OUT</p>	

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

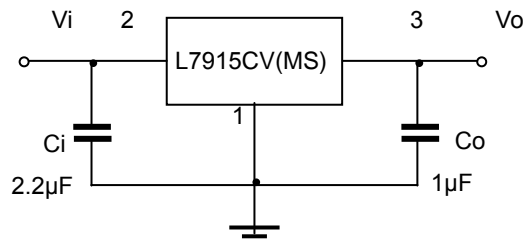
Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Thermal Resistance Junction-Air	$R_{\theta JA}$	83.3	$^\circ\text{C/W}$
Thermal Resistance Junction-Case	$R_{\theta JC}$	8.33	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_{OPR}	0~150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

($V_i = -23\text{V}$, $I_o = 500\text{mA}$, $C_i = 2.2\mu\text{F}$, $C_o = 1\mu\text{F}$, unless otherwise specified)

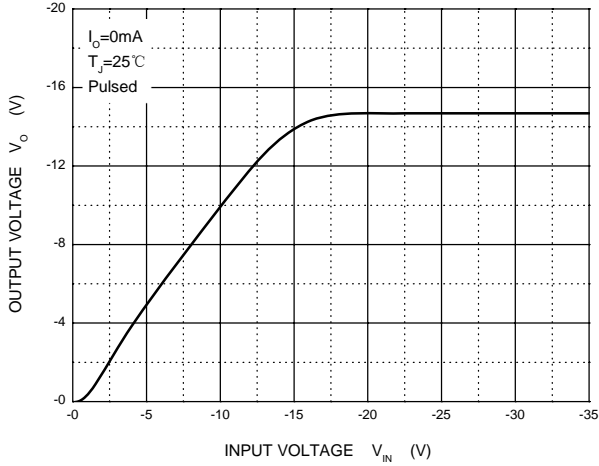
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_o	25°C	-14.4	-15	-15.6	V
		$-17.5\text{V} \leq V_i \leq -30\text{V}$, $I_o = 5\text{mA} - 1\text{A}$, $P \leq 15\text{W}$	0-125 $^\circ\text{C}$	-14.25	-15	-15.75
Load regulation	ΔV_o	$I_o = 5\text{mA} - 1.2\text{A}$	25°C	15	200	mV
		$I_o = 250\text{mA} - 750\text{mA}$	25°C	5	75	mV
Line regulation	ΔV_o	$-17.5\text{V} \leq V_i \leq -30\text{V}$	25°C	5	100	mV
		$-20\text{V} \leq V_i \leq -26\text{V}$	25°C	3	50	mV
Quiescent current	I_q	25°C		2	3	mA
Quiescent current change	ΔI_q	$-17.5\text{V} \leq V_i \leq -30\text{V}$	0-125 $^\circ\text{C}$		0.5	mA
	ΔI_q	$5\text{mA} \leq I_o \leq 1\text{A}$	0-125 $^\circ\text{C}$		0.5	mA
Output noise voltage	V_N	10Hz $\leq f \leq 100\text{KHz}$	25°C	375		μV
Output voltage drift	$\Delta V_o / \Delta T$	$I_o = 5\text{mA}$	0-125 $^\circ\text{C}$	-1		mV/ $^\circ\text{C}$
Ripple rejection	RR	$-18.5\text{V} \leq V_i \leq -28.5\text{V}$, $f = 120\text{Hz}$	0-125 $^\circ\text{C}$	54	60	dB
Dropout voltage	V_d	$I_o = 1\text{A}$	25°C	1.1		V
Peak current	I_{pk}	25°C		2.0		A

TYPICAL APPLICATION

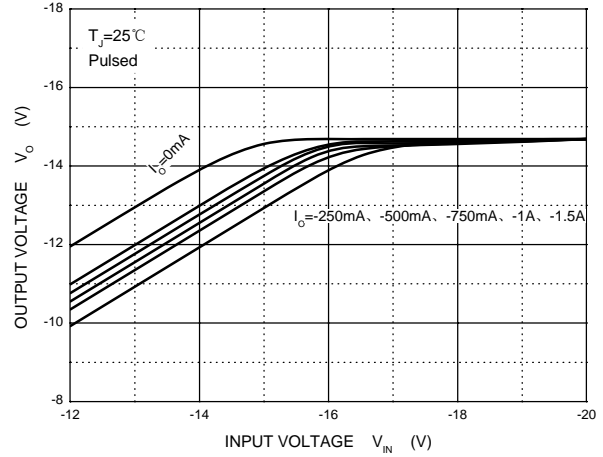


Typical Characteristics

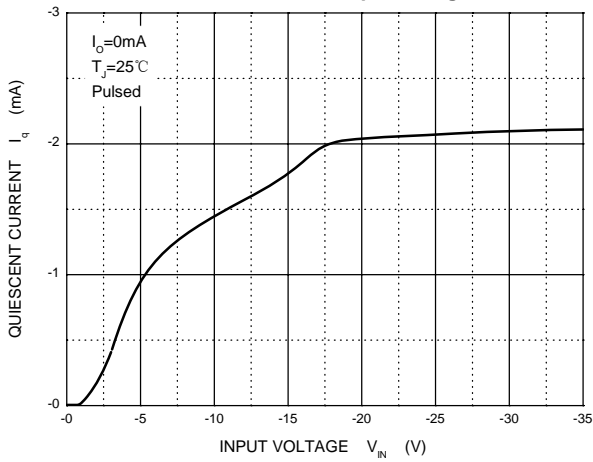
Output Characteristics



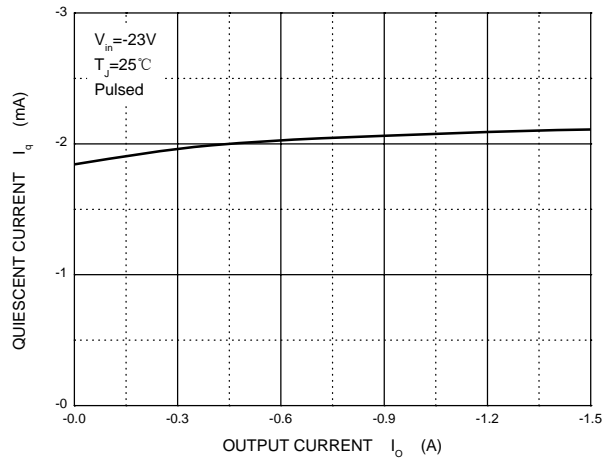
Dropout Characteristics



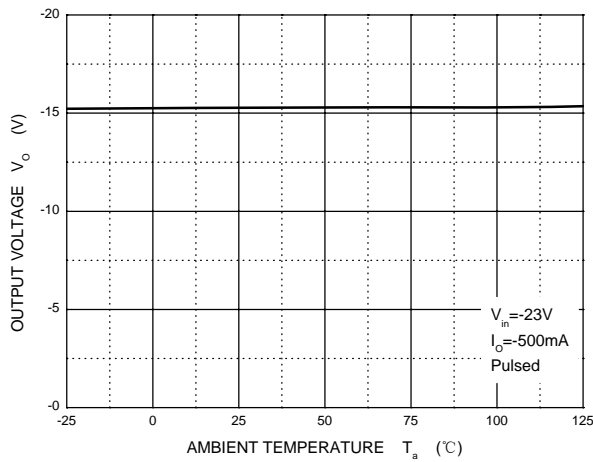
Quiescent Current vs Input Voltage



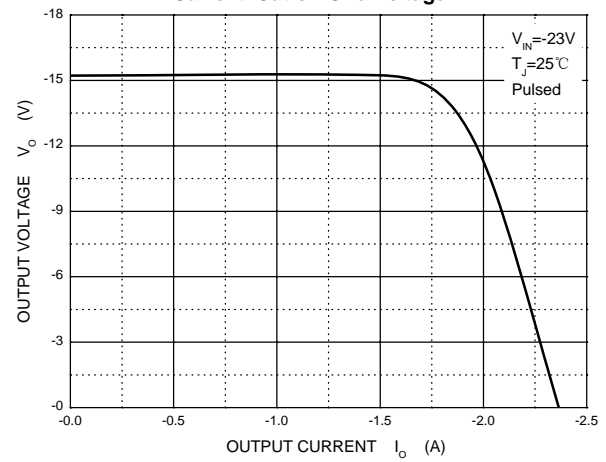
Quiescent Current vs Output Current



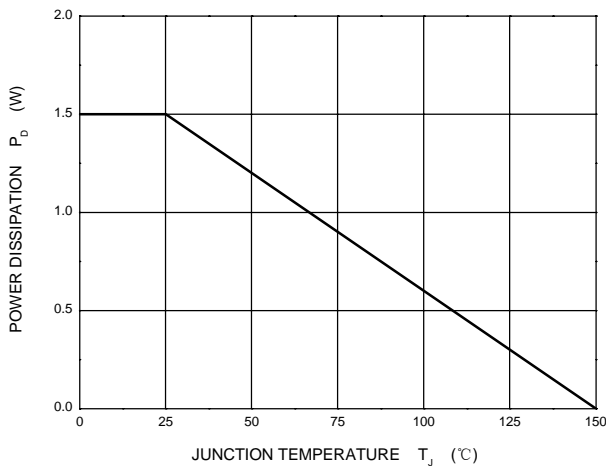
Output Voltage vs Ambient Temperature



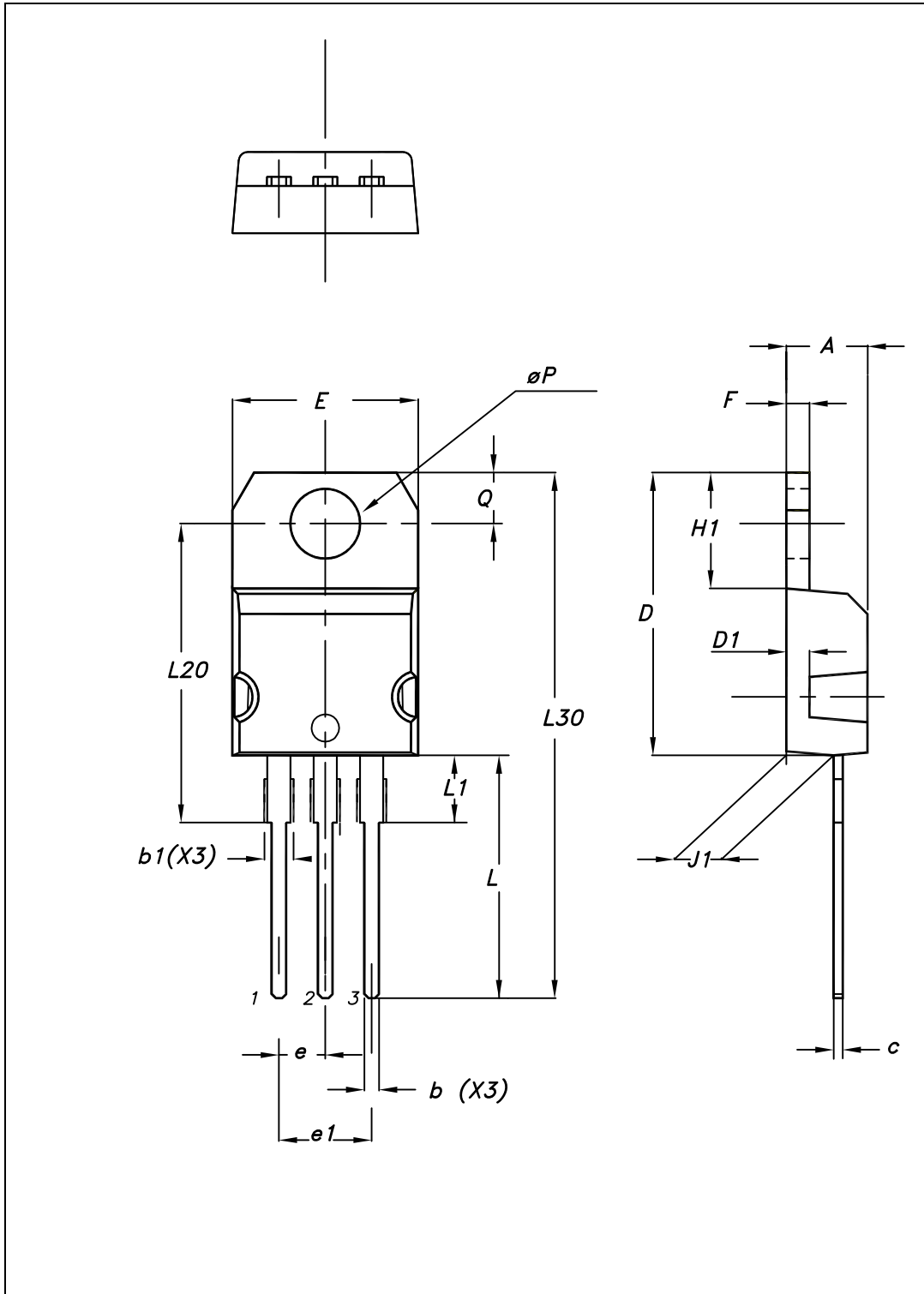
Current Cut-off Grid Voltage



Power Derating Curve



Package mechanical data



Package mechanical data

Dim.	mm		
	Min.	Typ.	Max.
A	4.40		4.60
b	0.61		0.88
b1	1.14		1.70
c	0.48		0.70
D	15.25		15.75
D1		1.27	
E	10		10.40
e	2.40		2.70
e1	4.95		5.15
F	1.23		1.32
H1	6.20		6.60
J1	2.40		2.72
L	13		14
L1	3.50		3.93
L20		16.40	
L30		28.90	
ØP	3.75		3.85
Q	2.65		2.95

REEL SPECIFICATION

P/N	PKG	QTY
L7815CV(MS)	TO-220	50/One tube 1000/a box of

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