

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

L7818CV(MS)

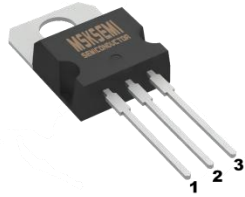

Product specification

Three-terminal positive voltage regulator

FEATURES

- Maximum Output current IOM : 1.5 A
- Output voltage Vo:18V
- Continuous total dissipation
 $P_D: 2\text{ W} (T_a = 25\text{ }^\circ\text{C})$
 $15\text{ W} (T_c = 25\text{ }^\circ\text{C})$

Reference News

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

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

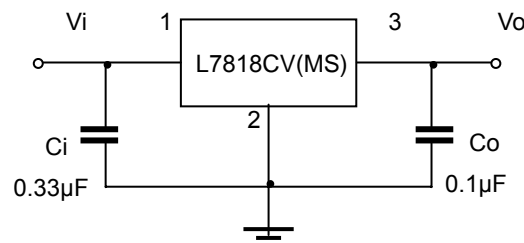
Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal resistance junction-air	$R_{\theta JA}$	65	$^\circ\text{C/W}$
Thermal resistance junction-cases	$R_{\theta JC}$	5	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_{OPR}	0-150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65-150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

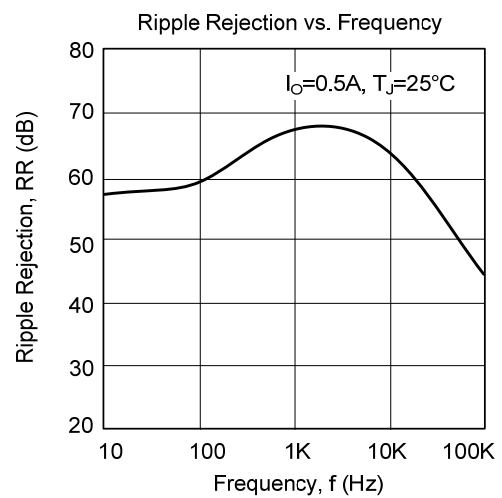
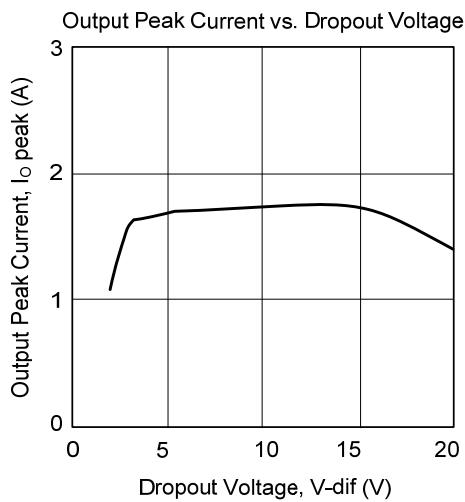
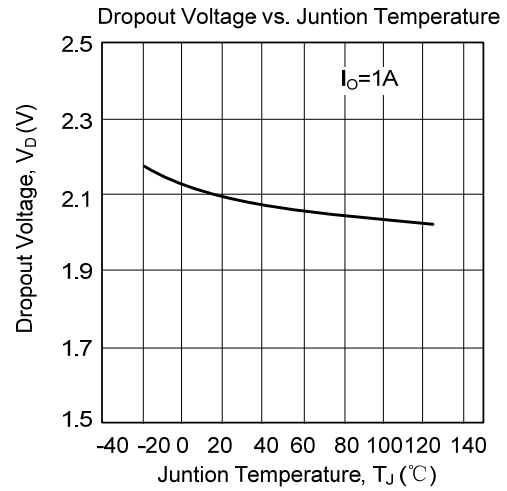
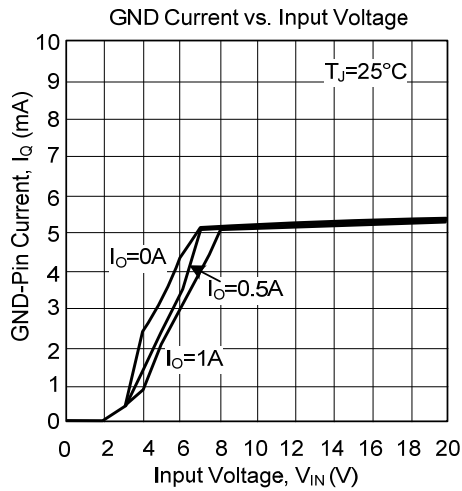
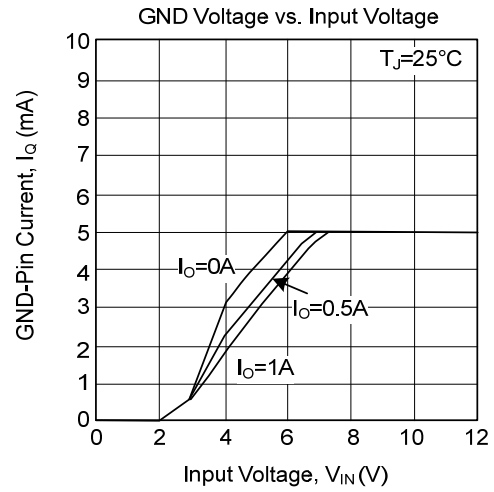
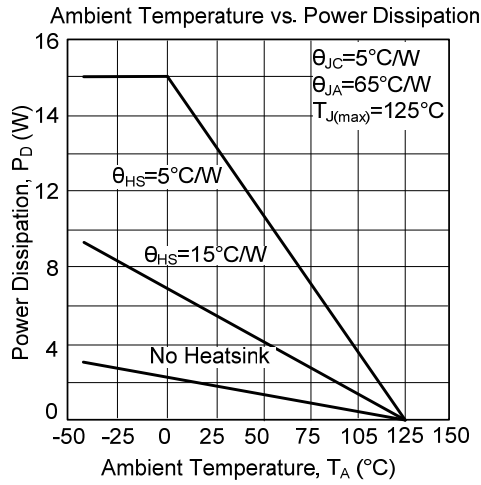
($V_i=23\text{V}, I_o=500\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25^\circ\text{C}$	17.3	18	18.7	V
		$21\text{V} \leq V_i \leq 33\text{V}, I_o=5\text{mA}-1\text{A}$ $P_o \leq 15\text{W}$	17.1	18	18.9	V
Load Regulation	ΔV_o	$T_j=25^\circ\text{C}, I_o=5\text{mA}-1.5\text{A}$		12	360	mV
		$T_j=25^\circ\text{C}, I_o=250\text{mA}-750\text{mA}$		4	180	mV
Line regulation	ΔV_o	$21\text{V} \leq V_i \leq 33\text{V}, T_j=25^\circ\text{C}$		15	360	mV
		$24\text{V} \leq V_i \leq 30\text{V}, T_j=25^\circ\text{C}$		5	180	mV
Quiescent Current	I_q	$T_j=25^\circ\text{C}$		4.5	8	mA
Quiescent Current Change	ΔI_q	$21\text{V} \leq V_i \leq 33\text{V}$			1	mA
	ΔI_q	$5\text{mA} \leq I_o \leq 1\text{A}$			0.5	mA
Output voltage drift	$\Delta V_o / \Delta T$	$I_o=5\text{mA}$		-1		$\text{mV}/^\circ\text{C}$
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$		110		μV
Ripple Rejection	RR	$22\text{V} \leq V_i \leq 32\text{V}, f=120\text{Hz}, T_j=25^\circ\text{C}$	53	69		dB
Dropout Voltage	V_d	$T_j=25^\circ\text{C}, I_o=1\text{A}$		2		V
Output resistance	R_o	$f=1\text{KHz}$		22		$\text{m}\Omega$
Short Circuit Current	I_{sc}	$V_i=35\text{V}, T_j=25^\circ\text{C}$		200		mA
Peak Current	I_{pk}	$T_j=25^\circ\text{C}$		2.0		A

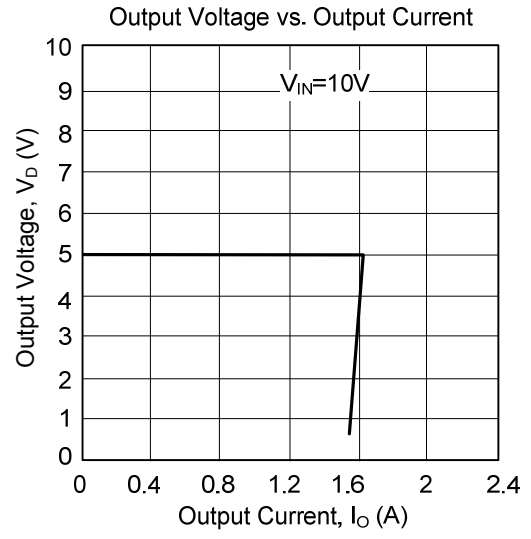
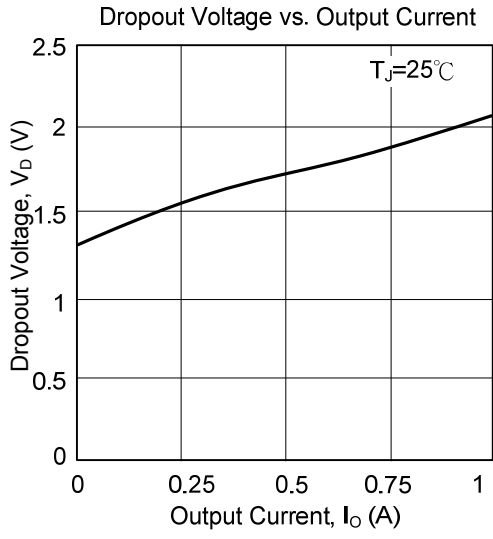
TYPICAL APPLICATION



TYPICAL CHARACTERISTICS



TYPICAL CHARACTERISTICS



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
L7818CV(MS)	TO-220	50/One tube 1000/a box of

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