



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

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Designer's Data Sheet

Part Number /Ordering Information ^{1/}

SVR1118 - 2.5 J DB H- Screening ^{2/} _ = Not Screened

H = High Rel Level

K = Space Level

R = Radiation Tolerant

Lead Bend: ^{3/} _ = Straight

DB = Down Bend

UB = Up Bend

Z = Z Bend

Package: ^{4/} J = TO-257

G = CerPack

S.5 = SMD.5

-28= LCC 28

Voltage: 2.5 = 2.5V

2.85= 2.85V

5 = 5V

SVR1118 SERIES

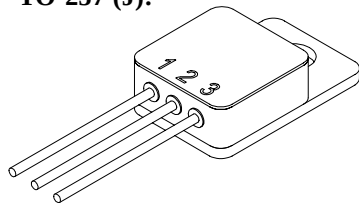
800 mAmps /2.5 thru 5Volts FIXED LOW DROPOUT LINEAR VOLTAGE REGULATOR

FEATURES:

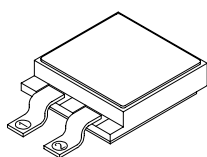
- Replacement for LT1118 Types
- Eutectic Die Attach
- Regulates While Sourcing or Sinking Current
- Ultra Low Power Shutdown Mode
- Stable for Any $C_{LOAD} \geq 0.22\mu F$
- Fast Settling Time
- Isolated Hermetically Sealed Power Package
- High Thermally Conductive Package
- Reduced Heatsinking Required
- 150°C Operating Temperature
- Custom Lead Forming Available
- Class H or K (Space) Screening Available
- Radiation Tolerant Devices are Available

MAXIMUM RATINGS	SYMBOL	VALUE	UNITS
Supply Voltage	V_{CC}	15	V
Input Voltage	V_{IN}	-0.2 to 7	V
Output Voltage	V_{OUT}	-0.2 to $V_{CC} + 0.5$	V
Operating Temperature	T_{OP}	-55 to +150	°C
Storage Temperature	T_{STG}	-65 to +150	°C

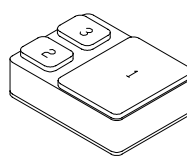
TO-257 (J):



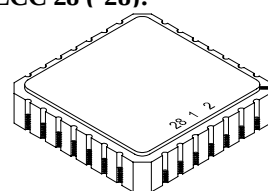
CerPack (G):



SMD.5 (S.5):



LCC 28 (-28):



FOR PACKAGE OUTLINE REQUEST FOLLOWING DOCUMENTS

PACKAGE	DOCUMENT
TO-257 (J, JDB, JUB)	60-0149-504
CerPack (G, GZB)	60-0149-366
SMD.5 (S.5)	60-0149-507
LCC28 (-28)	60-0149-342

PIN ASSIGNMENT

PACKAGE	Vout	Gnd	Vin
TO-257 (J)	Pin 1	Pin 2	Pin 3
CerPack (G)	Pin 1	Base	Pin 2
SMD.5 (S.5)	Pin 2	Pin 1	Pin 3
LCC 28 (-28)	1, 15 - 28	5 - 11	2, 3, 13, 14

NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: SVR005A

SVR1118 SERIES



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Electrical Characteristics ^{4/}			t°	SYMBOL	MIN	TYP	MAX	UNITS
Quiescent Current		V _{IN} = 5V	*	V _{IN}	--	0.6	1.0	mA
		V _{IN} = 0V	*	V _{IN}	--	1.0	10	μA
Enable Input Thresholds		Input Low Level	*		0.4	1.4	--	V
		Input High Level	*		--	1.4	2	V
Output Voltage	SVR1118-2.5	No Load	25	V _{OUT}	2.47	2.5	2.53	V
		All Operating Conditions ^{5/}	*		2.45	2.5	2.55	V
	SVR1118-2.85	No Load	25		2.82	2.85	2.88	V
		All Operating Conditions ^{5/}	*		2.79	2.85	2.91	V
	SVR1118-5	No Load	25		4.95	5.0	5.05	V
		All Operating Conditions ^{5/}	*		4.90	5.0	5.10	V
Line Regulation (I _{OUT} = 0A)	SVR1118-2.5	(4.2V ≤ V _{IN} ≤ 15V)	*	$\frac{\Delta V_{OUT}}{\Delta V_{IN}}$	--	--	6.0	mV
	SVR1118-2.85	(4.75V ≤ V _{IN} ≤ 15V)	*		--	--	6.0	mV
	SVR1118-5	(6.5V ≤ V _{IN} ≤ 20V)	*		--	--	10	mV
Load Regulation ^{6/}	SVR1118-2.5	(0 ≤ I _{OUT} ≤ 800mA)	*	$\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$	--	--	10	mV
		(-400mA ≤ I _{OUT} ≤ 0)	*		--	--	10	mV
	SVR1118-2.85	(0 ≤ I _{OUT} ≤ 800mA)	*		--	--	10	mV
		(-400mA ≤ I _{OUT} ≤ 0)	*		--	--	10	mV
	SVR1118-5	(0 ≤ I _{OUT} ≤ 800mA)	*		--	--	25	mV
		(-400mA ≤ I _{OUT} ≤ 0)	*		--	--	25	mV
Dropout Voltage ^{7/}		(I _{OUT} = 100mA)	25	ΔV	--	0.85	1.1	V
		(I _{OUT} = 800mA)	25		--	1.0	1.3	V
Ripple Rejection		(f _{RIPPLE} = 120Hz, V _{RIPPLE} = 0.5V _{P-P} , ΔV=2V)	25 25		60	80	--	dB
Load Transient Settling Time ΔV = 25V; C _{LOAD} = 1μF		(0 ≤ I _{OUT} ≤ 800mA)	25		--	5	--	μsec
		(-400mA ≤ I _{OUT} ≤ 0)	25		--	5	--	μsec
Output Short Circuit Current		(V _{OUT} = 0)		I _{SC} ⁺	800	1200	--	mA
		(V _{OUT} = V _{IN})		I _{SC} ⁻	--	-700	- 400	mA
Thermal Shutdown Junction Temperature		No Load			--	170	--	°C
Enable Turn-On Delay		No Load			--	50	--	μsec

NOTES:

* Full Temperature Range

^{1/} For Ordering Information, Price, and Availability Contact Factory.

^{2/} Screening per MIL-PRF-19500.

^{3/} For Package Outlines and Lead Bend Options Contact Factory

^{4/} Unless Otherwise Specified, testing done at V_{CC} = 5V (for SVR1118-2.5 and SVR1118-2.85) and at V_{CC} = 7V (for SVR1118-5); C_{LOAD} = 1μF; I_{LOAD} = 0.

^{5/} All Operating Conditions include the combined effects of Load Current, Input Voltage, and Temperature over each parameter's full range.

^{6/} Load and Line Regulation are tested at a constant junction temperature by low duty cycle pulse testing.

^{7/} Dropout Voltage is defined as a minimum Input to Output Voltage measured while sourcing the specified current.