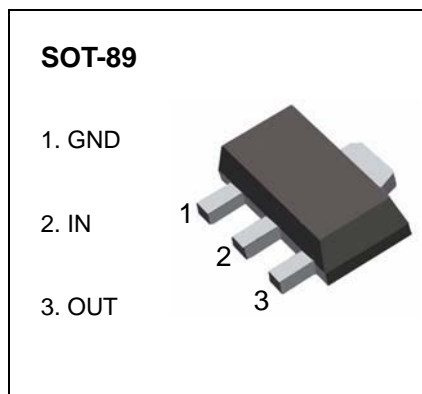


Three-terminal negative voltage regulator

FEATURES

Maximum Output current
 $I_{OM}: 0.1 \text{ A}$
 Output voltage
 $V_o: -15 \text{ V}$
 Continuous total dissipation
 $P_D: 0.6 \text{ W (} T_a = 25 \text{ }^\circ\text{C)}$



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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	208.3	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_{OPR}	-40~+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ\text{C}$

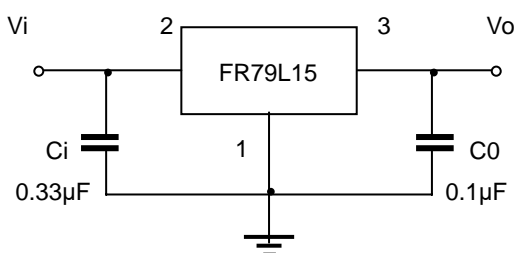
ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

($V_i = -23\text{V}$, $I_o = 40\text{mA}$, $C_i = 0.33\mu\text{F}$, $C_o = 0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Output voltage	V_o	$T_J = 25^\circ\text{C}$	-14.55	-15	-15.45	V
		$-17.5\text{V} \leq V_i \leq -30\text{V}$, $I_o = 1\text{mA} \sim 40\text{mA}$	-14.25	-15	-15.75	V
		$I_o = 1\text{mA} \sim 70\text{mA}$	-14.25	-15	-15.75	V
Load Regulation	ΔV_o	$I_o = 1\text{mA} \sim 100\text{mA}$, $V_i = -23\text{V}$, $T_J = 25^\circ\text{C}$		25	150	mV
		$I_o = 1\text{mA} \sim 40\text{mA}$, $V_i = -23\text{V}$, $T_J = 25^\circ\text{C}$		15	75	mV
Line regulation	ΔV_o	$-17.5\text{V} \leq V_i \leq -30\text{V}$, $I_o = 40\text{mA}$, $T_J = 25^\circ\text{C}$		65	300	mV
		$-20\text{V} \leq V_i \leq -30\text{V}$, $I_o = 40\text{mA}$, $T_J = 25^\circ\text{C}$		50	250	mV
Quiescent Current	I_q	$T_J = 25^\circ\text{C}$			6.5	mA
Quiescent Current Change	ΔI_q	$-20\text{V} \leq V_i \leq -30\text{V}$, $I_o = 40\text{mA}$			1.5	mA
	ΔI_q	$1\text{mA} \leq I_o \leq 40\text{mA}$			0.1	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_J = 25^\circ\text{C}$		90		$\mu\text{V}/V_o$
Ripple Rejection	RR	$-18.5\text{V} \leq V_i \leq -28.5\text{V}$, $f = 120\text{Hz}$	34	39		dB
Dropout Voltage	V_d	$T_J = 25^\circ\text{C}$		1.7		V

* Pulse test.

TYPICAL APPLICATION

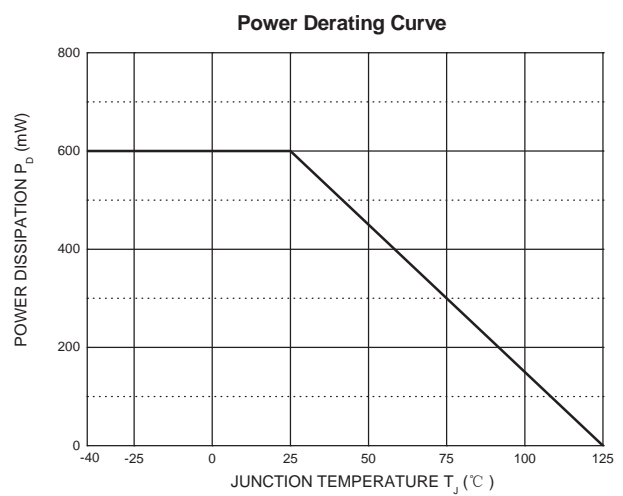
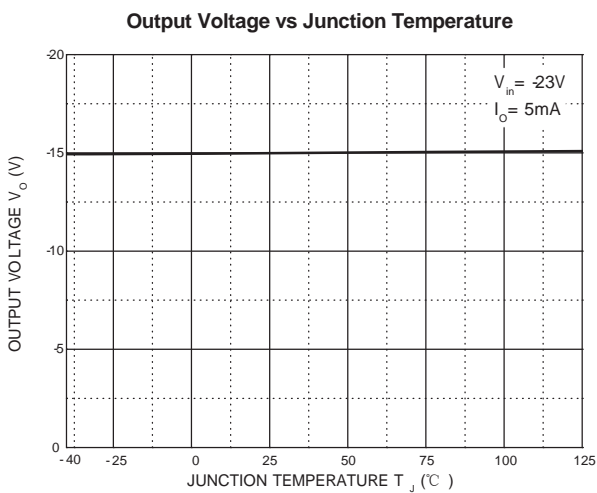
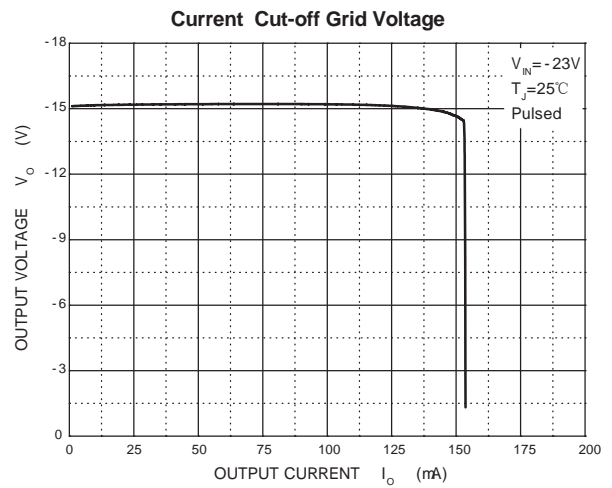
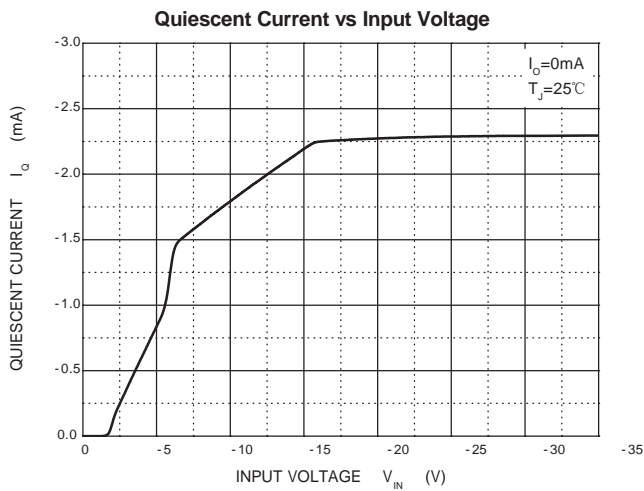
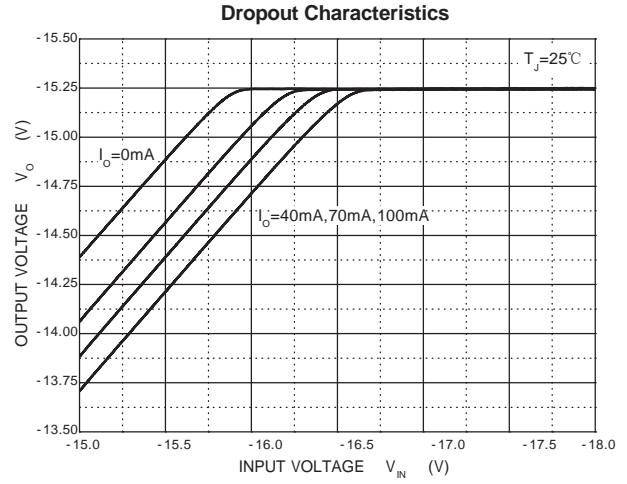
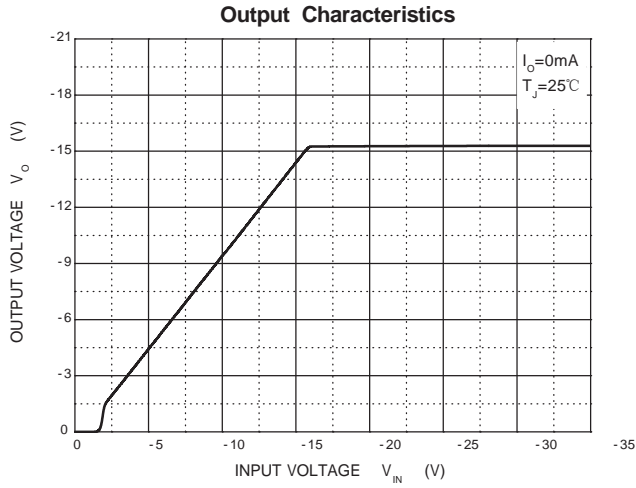


Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

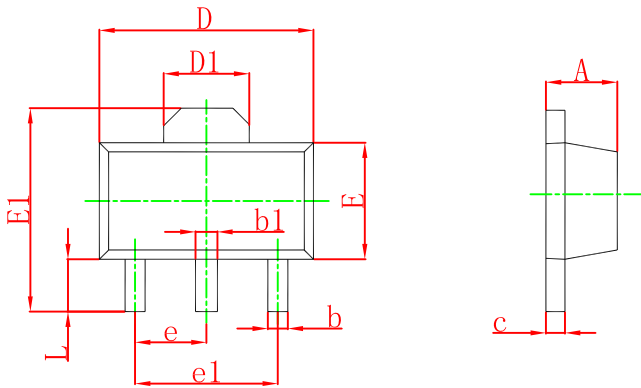


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Typical Characteristics

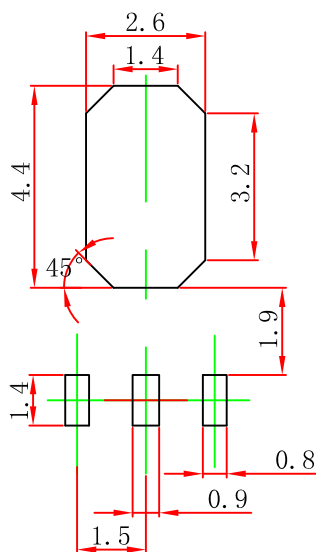


SOT-89 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

SOT-89 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.