



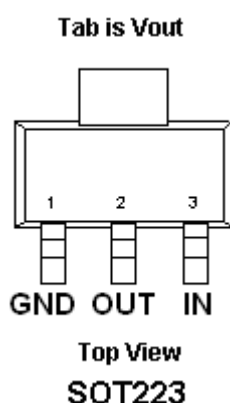
Description

SE1122 is a low dropout positive fixed-mode regulator with minimum of 1A output current capability. The product is specifically designed to provide well-regulated supply for low voltage IC applications such as high-speed bus termination and low current 1.2V logic supply. SE1122 is also well suited for other applications such as VGA cards. SE1122 is guaranteed to have a typical 1.3V dropout at full load current making it ideal to provide well-regulated outputs of 1.2 output voltage with 2.7V input voltage supply.

Features

- 1.3V typical dropout at full load current
- Fixed $1.2V \pm 2\%$ output voltage
- Fast transient response
- Output current limiting
- Built-in thermal shutdown
- Good noise rejection
- Rugged 2KV ESD withstand capability.
- Available in SOT223 Packages.
- Works best with inexpensive electrolytic Capacitors.
- 100% Lead (Pb)-Free

Pin Configuration



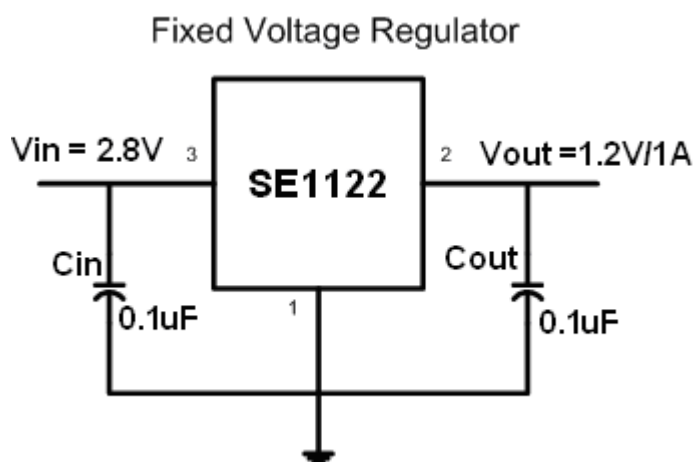
Application

- PC peripheral
- Communication

Ordering Information

Device	Package	V _{OUT}
SE1122	SOT-223 (Lead-free)	Fixed output voltages 1.2V

Typical Application





Absolute Maximum Rating

Symbol	Parameter	Maximum	Units
V_{IN}	Input Supply Voltage	12	V
θ_{JA}	Thermal Resistance Junction to Ambient (SOT-223)	60	°C/W
T_J	Operating Junction Temperature Range	0 to 125	°C
T_{STG}	Storage Temperature Range	-40 to 150	°C
T_{LEAD}	Lead Temperature (Soldering 10 Sec)	260	°C

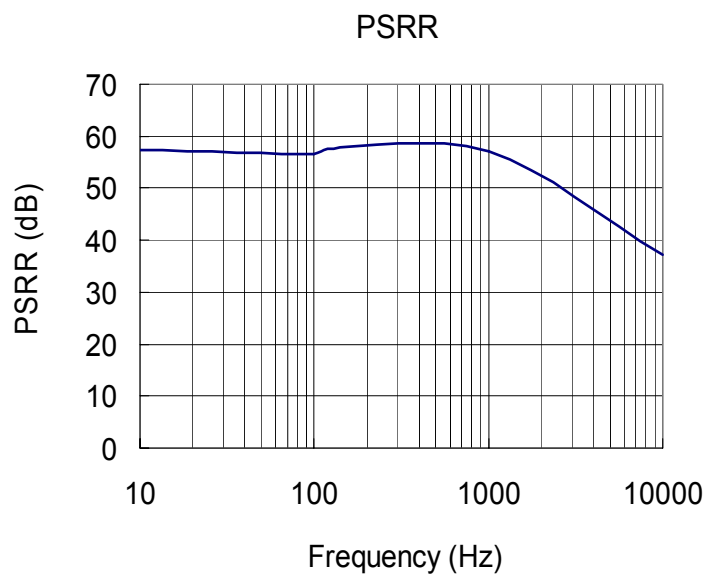
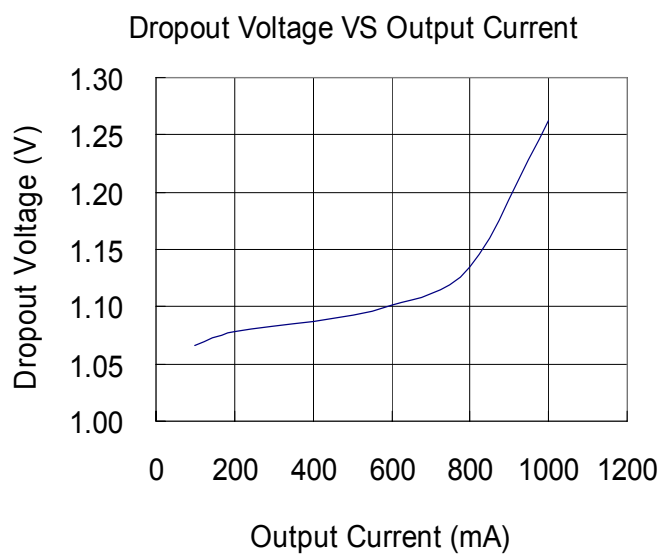
Electrical Characteristic

$V_{IN} = 2.8V$, $I_{OUT} = 10mA$, $C_{IN} = 0.1\mu F$, $C_{OUT} = 0.1\mu F$, $T_A = 25^\circ C$, unless otherwise specified.

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_O	Output Voltage ⁽¹⁾		1.176	1.2	1.224	V
V_{SR}	Line Regulation ⁽¹⁾	$2.8V < V_{IN} < 12V$	--	0.3	--	%/V
V_{LR}	Load Regulation ⁽¹⁾	$10mA \leq I_{OUT} \leq 1A$	--	0.0005	--	%/mA
I_q	Quiescent Current			1.2		mA
V_D	Dropout Voltage ⁽²⁾	$I_{OUT} = 1A$	--	1.3	--	V
I_{CL}	Current Limit		1.1	--	--	A
T_C	Temperature Coefficient		--	0.02	--	%/°C
OTP	Thermal Protection		--	175	--	°C
V_N	RMS Output Noise	$T_A = 25^\circ C$, $10Hz \leq f \leq 10kHz$	--	0.003	--	% V_O
R_A	Ripple Rejection Ratio	$f = 120Hz$, $C_{OUT} = 22\mu F$ (Tantalum), $(V_{IN} - V_{OUT}) = 3V$, $I_{OUT} = 10mA$	--	57	--	dB

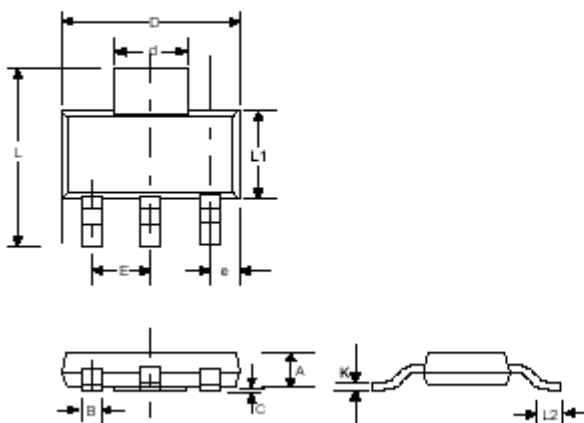
Notes:

1. Low duty cycle pulse testing with which T_J remains unchanged.
3. The dropout voltage is the input/output differential at which the circuit ceases to regulate against further reduction in input voltage. It is measured when the output voltage has dropped 2% from the nominal value obtained at $V_{IN} = V_{OUT} + V_{dropout}$.





Outline Drawing for SOT-223



DIMENSIONS				
DIM ^N	INCHES		MM	
	MIN	MAX	MIN	MAX
A	—	0.071	—	1.80
B	0.025	0.033	0.640	0.840
C	0.012	—	0.31	—
D	0.248	0.264	6.30	6.71
d	0.115	0.124	2.95	3.15
E	—	0.090	—	2.29
e	0.033	0.041	0.840	1.04
L	0.264	0.287	6.71	7.29
L1	0.130	0.148	3.30	3.71
L2	0.012	—	0.310	—
K	0.010	0.014	0.250	0.360

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