Solid State
Micro Technology
for Music

SSM 2050

VOLTAGE CONTROLLED TRANSIENT GENERATOR

DESCRIPTION

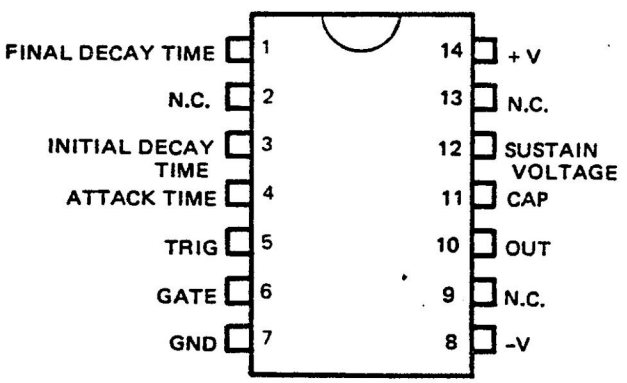
The SSM 2050 is a self-contained ADSR type electronic music transient generator. Attack, initial decay and final decay times can be exponentially voltage controlled over a 10,000 to 1 range from 1 msec to more than 10 sec. The sustain level is linearly voltage controllable from 0 to 100%. The device has independant gate and trigger inputs for maximum flexibility and much effort has been taken to minimize the external parts count.

FEATURES

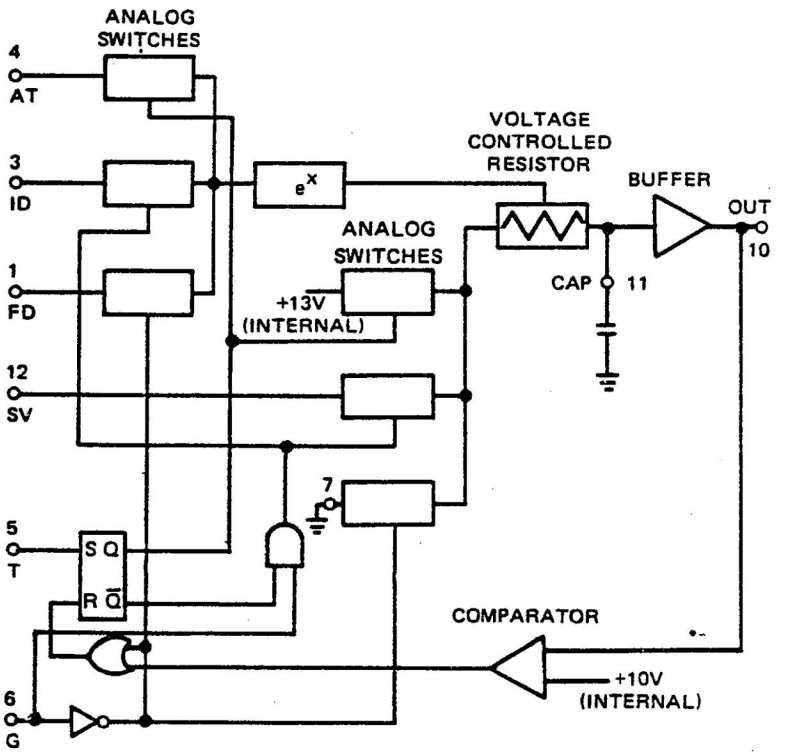
- +/- 15V Supplies
- Exponential Time Control Response
- Minimum External Component Count
- Guaranteed Control Rejection Characteristics
- 10,000:1 Time Control Range
- Full ADSR Response
- Independent Gate & Trigger

APPLICATIONS

- Music Synthesizers
- Organs
- Rhythm Synthesizers
- Sound Effects Generators
- Electronic Games



PIN DIAGRAM – TOP VIEW



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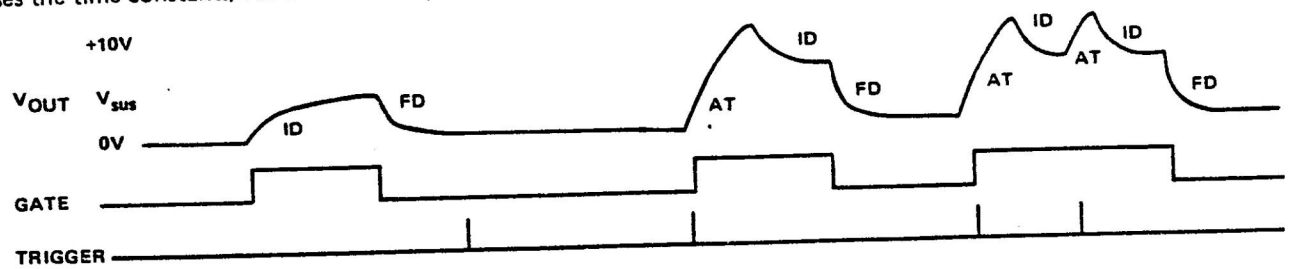
SPECIFICATIONS:
V_S = +/-15V, T_A = 25°C, CAP = 0.1 μF

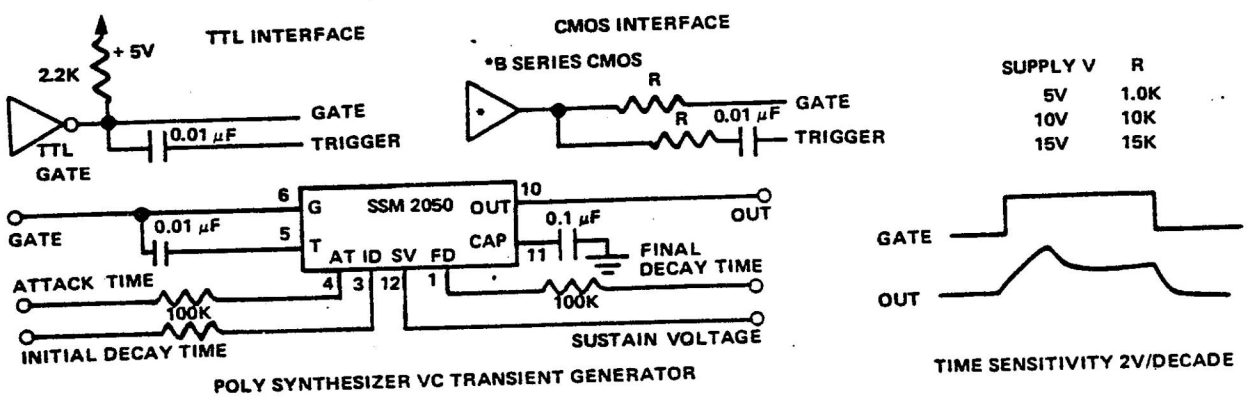
OPERATING TEMPERATURE
0 to 75°C

STORAGE TEMPERATURE
-55 to +125°C

PARAMETER	MIN	TYP	MAX	UNIT
Time Range	2-20000	1-100000		msec
Offset, Gate=off	±250	±50		mV
Time Constants V_{IN} = 0	50	100	200	msec
Offset V_{SUS}-V_{OUT} Gate = ON	-1	0	+1	V
Gate & Trig On Voltage Current V_{IN} = 1.5V		1.0 500	1.5 750	V μA
Output Noise		0.5		mV RMS
V_{attack}	10	10.5	11	V
Final Decay Control Rejection V_{OUT}; V_{cntl} = 0 –+120mV V_{cntl} = 0 –+120mV		30 30	150 150	mV mV
Control Input Impedance	2.3	3.1	3.9	kohm
Time Control Sensitivity		+18		mV/octave

AT, ID, FD indicate times controlled by Attack, Initial Decay and Final Decay Time Control Inputs respectively. (A positive voltage increases the time constant.) All are nominally exponential approaches to +13V, Sustain Voltage and Ground respectively.





POLY SYNTHESIZER VC TRANSIENT GENERATOR