



**SSM
2050**

VOLTAGE CONTROLLED TRANSIENT GENERATOR

DESCRIPTION

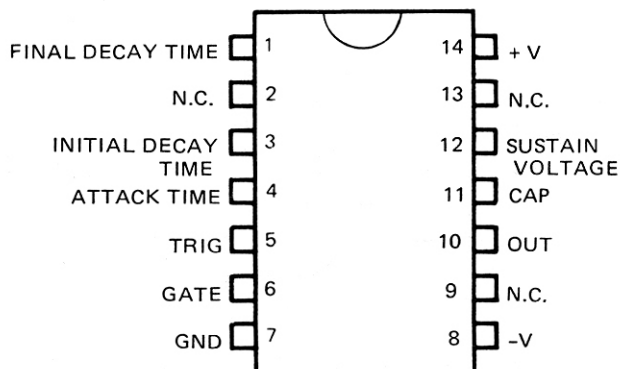
The SSM 2050 is a self-contained ADSR type electronic music transient generator. Attack, initial decay and final decay times can be exponentially voltage controlled over a 10,000 to 1 range from 1 msec to more than 10 sec. The sustain level is linearly voltage controllable from 0 to 100%. The device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

FEATURES

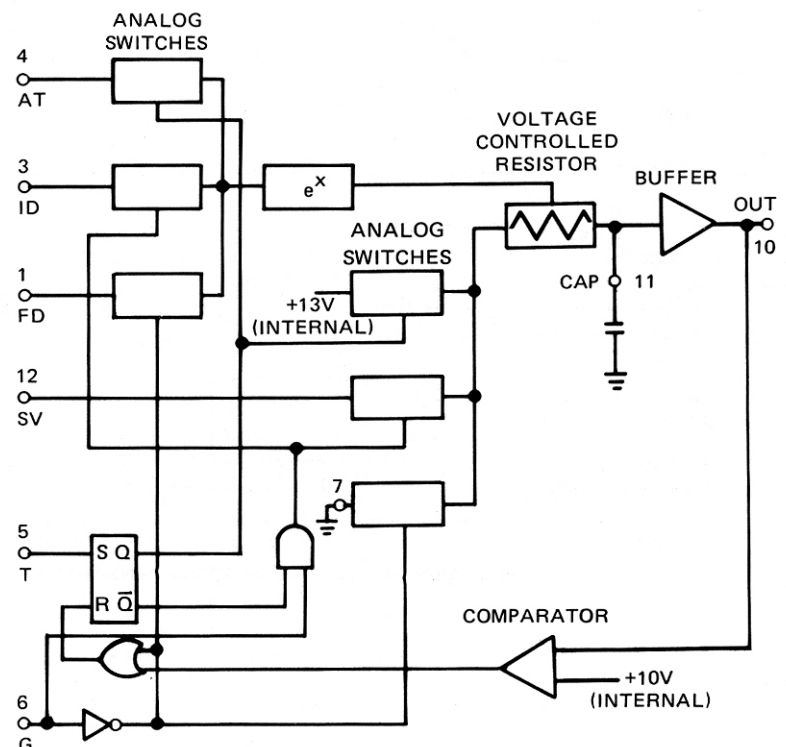
- +/- 15V Supplies
- Exponential Time Control Response
- Minimum External Component Count
- Guaranteed Control Rejection Characteristics
- 10,000:1 Time Control Range
- Full ADSR Response
- Independent Gate & Trigger

APPLICATIONS

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



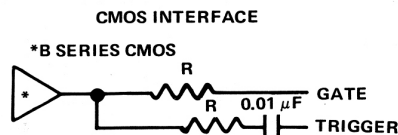
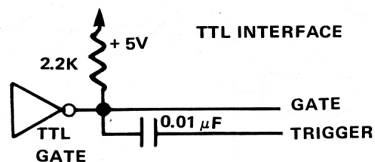
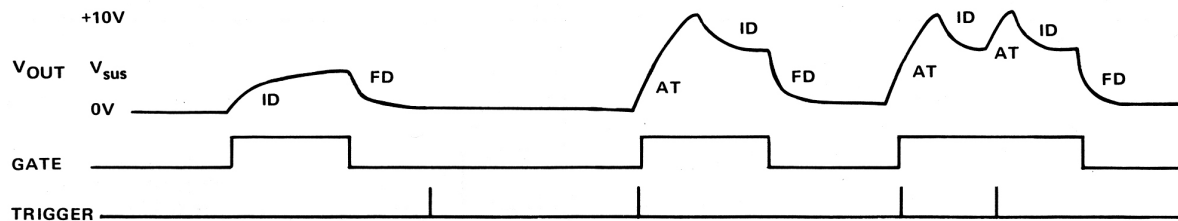
PIN DIAGRAM - TOP VIEW



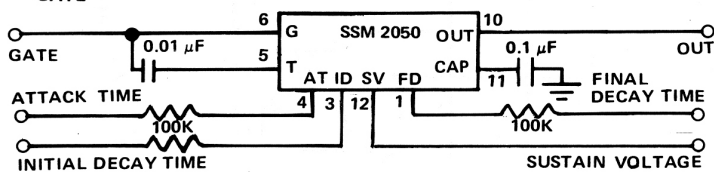
SPECIFICATIONS: $V_S = \pm 15V$, $T_A = 25^\circ C$, $CAP = 0.1 \mu F$ **OPERATING TEMPERATURE**0 to $75^\circ C$ **STORAGE TEMPERATURE**-55 to $+125^\circ C$

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		1.0	1.5	V
Current $V_{IN} = 1.5V$		500	750	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

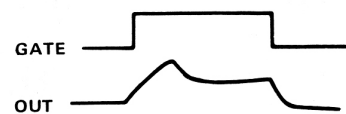
AT, ID, FD indicate times controlled by Attack, Initial Decay and Final Decay Time Control Inputs respectively. (A positive voltage increases the time constant.) All are nominally exponential approaches to +13V, Sustain Voltage and Ground respectively.



SUPPLY V	R
5V	1.0K
10V	10K
15V	15K



POLY SYNTHESIZER VC TRANSIENT GENERATOR



TIME SENSITIVITY 2V/DECADE