

ADJUSTABLE DIVIDED VOLTAGE GENERATOR

■ GENERAL DESCRIPTION

The NJM2366 is an adjustable divided voltage generator for medium and large size LCD panels which are required five bias voltage.

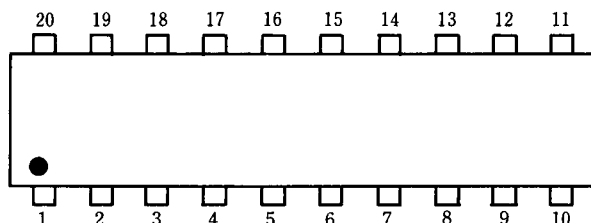
5 divided voltage are generated by internal bleeder resistor and are output through the buffer amplifier.

The minimum voltage ratio is selected from 1/13 to 1/19 of supply voltage.

■ FEATURES

- Operating Voltage (-10V to -36V)
- Low Operating Current (1.5mA max.)
- Output Current ($\pm 10\text{mA}$ min.)
- 5 Divided Voltage From Supply Voltage
- Internal an OP-AMP
- Bipolar Technology
- Package Outline SOP20, SSOP20

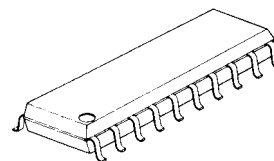
■ PIN CONFIGURATION



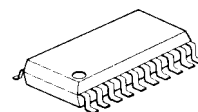
NJM2366G

NJM2366V

■ PACKAGE OUTLINE



NJM2366G

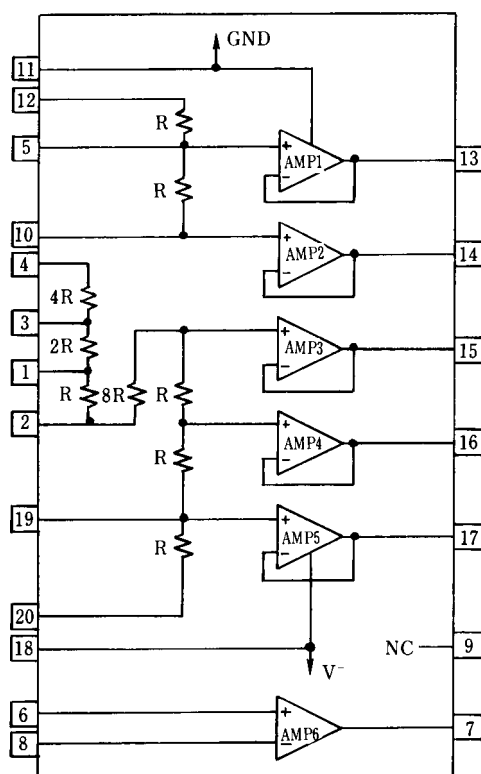


NJM2366V

PIN FUNCTION

1. RX3	11. GND
2. RX4	12. V_{in}
3. RX2	13. V_1
4. RX1	14. V_2
5. V_{in1}	15. V_3
6. V_{in+}	16. V_4
7. V_{out}	17. V_5
8. V_{in}	18. V_-
9. NC	19. V_{in3}
10. V_{in2}	20. V_{ref}

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS

(Ta = 25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+	-40	V
Vin Voltage	V_{in}	-40	V
Output Current	I_{OUT}	±15	mA
Power Dissipation (G/V type)	P_D	300	mW
Operating Temperature	T_{opr}	-40 to +85	°C
Storage Temperature Range (G/V type)	T_{stg}	-50 to +125	°C

■ ELECTRICAL CHARACTERISTICS

(V = -16V, Ta = 25°C)

Total Device

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Current	I_{CC}	$V = V_{ref} = -30V$, 1/13Bias	-	-	1.5	mA
Resistance	R	$I_R = 20\mu A$	15	20	25	kΩ
Internal Resistance Divided Ratio	Ra1	R/R	0.98	1.00	1.02	
	Ra2	2R/R	1.96	2.00	2.04	
	Ra3	4R/R	3.92	4.00	4.08	
	Ra4	8R/R	7.84	8.00	8.16	

Buffers Block

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNIT
Output Voltage Rating	RA1	$V = V_{ref}$ $ GND - V1 / V1 - V2 $ $-10V > V > -30V$	0.98	1.00	1.02	
	RA2	$ V3 - V4 / V4 - V5 $ $-10V > V > -30V$	0.98	1.00	1.02	
Output Voltage Difference	DV	(A) + (B) ; $V = V_{ref}$ (A) = $ GND - V1 - V1 - V2 $ (B) = $ V4 - V5 - V3 - V4 $	-100	0	100	mV
Load Regulation	$\Delta V1$	$V = V_{ref} = -30V$ $-10mA \leq I_{OUT} \leq 10mA$	-20	0	20	mV
	$\Delta V2$		-20	0	20	
	$\Delta V3$		-20	0	20	
	$\Delta V4$		-20	0	20	
	$\Delta V5$		-20	0	20	
	ΔV_{out}		-20	0	20	

■ ELECTRICAL CHARACTERISTICS

($V = -16V$, $T_a = 25^\circ C$)

PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Output Current 1	$I_{SOURCE1}$	$V = V_{ref} = -30V$ 1/13Bias	+10	-	-	mA
	$I_{SOURCE2}$		+10	-	-	
	$I_{SOURCE3}$		+10	-	-	
	$I_{SOURCE4}$		+10	-	-	
	$I_{SOURCE5}$		+10	-	-	
	$I_{SOURCE6}$		+10	-	-	
Output Current 2	I_{SINK1}	$V = V_{ref} = -30V$ 1/13Bias	-10	-	-	
	I_{SINK2}		-10	-	-	
	I_{SINK3}		-10	-	-	
	I_{SINK4}		-10	-	-	
	I_{SINK5}		-10	-	-	
	I_{SINK6}		-10	-	-	

[CAUTION]

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