ADJUSTABLE DIVIDED VOLTAGE GENERATOR

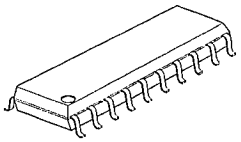
■ GENERAL DESCRIPTION

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

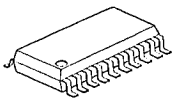
5 divided voltage are generated by internal bleeder resistor and are output through the buffer amplifier.

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

■ PACKAGE OUTLINE



NJM2366G

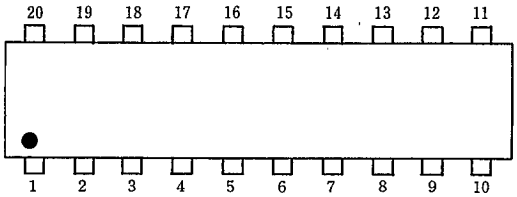


NJM2366V

■ FEATURES

- Operating Voltage (−10V～−36V)
- Low Operating Current (1.5mA max.)
- Output Current (±10mA min.)
- 5 Divided Voltage From Supply Voltage
- Internal an OP-AMP
- Bipolar Technology
- Package Outline SOP20, SSOP20

■ PIN CONFIGURATION

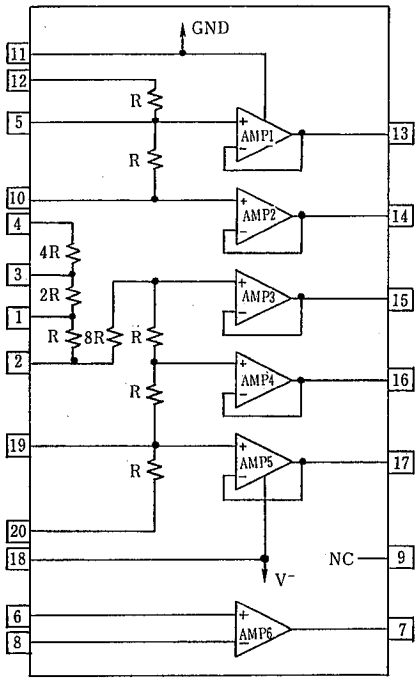


NJM2366G
NJM2366V

PIN FUNCTION

1.	RX3	11.	GND
2.	RX4	12.	Vin
3.	RX2	13.	V1
4.	RX1	14.	V2
5.	Vin1	15.	V3
6.	Vin+	16.	V4
7.	Vout	17.	V5
8.	Vin	18.	V−
9.	NC	19.	Vin3
10.	Vin2	20.	Vref

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS

(Ta=25℃)

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～+85	℃
Storage Temperature Range(G/V type)	T_{stg}	−50～+125	℃

■ ELECTRICAL CHARACTERISTICS

(V^-=−16V, Ta=25℃)

Total Device

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Current	I_{CC}	V^-=Vref=−30V, 1/13Bias	−	−	1.5	mA
Resistance	R	IR=20 μA	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^-=Vref | 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^-=Vref (A)= | GND−V1 | − | V1−V2 | (B)= | V4−V5 | − | V3−V4 |	−100	0	100	mV
Load Regulation	△V1	V^-=Vref=−30V −10mA≦Iout≦10mA	−20	0	20	mV
	△V2		−20	0	20	
	△V3		−20	0	20	
	△V4		−20	0	20	
	△V5		−20	0	20	
	△Vout		−20	0	20	

■ ELECTRICAL CHARACTERISTICS

(V^-=−16V, Ta=25℃)

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNIT
Output Current 1	$I_{SOURSE}1$	V^-=Vref=−30V 1/13Bias	+10	−	−	mA
	$I_{SOURSE}2$		+10	−	−	
	$I_{SOURSE}3$		+10	−	−	
	$I_{SOURSE}4$		+10	−	−	
	$I_{SOURSE}5$		+10	−	−	
	$I_{SOURSE}6$		+10	−	−	
Output Current 2	$I_{SINK}1$	V^-=Vref=−30V 1/13Bias	−10	−	−	
	$I_{SINK}2$		−10	−	−	
	$I_{SINK}3$		−10	−	−	
	$I_{SINK}4$		−10	−	−	
	$I_{SINK}5$		−10	−	−	
	$I_{SINK}6$		−10	−	−	

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