

A - 1	PRODUCT STANDARDS	NN5199K			
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Type	Silicon Multi Chip IC
Package	DIL 52-Pin Plastic Package (Shrunk Type)
Application	IC for Color TV
Function	Multi-System Color TV Signal Processor (Built-in I ² C Bus Interface)

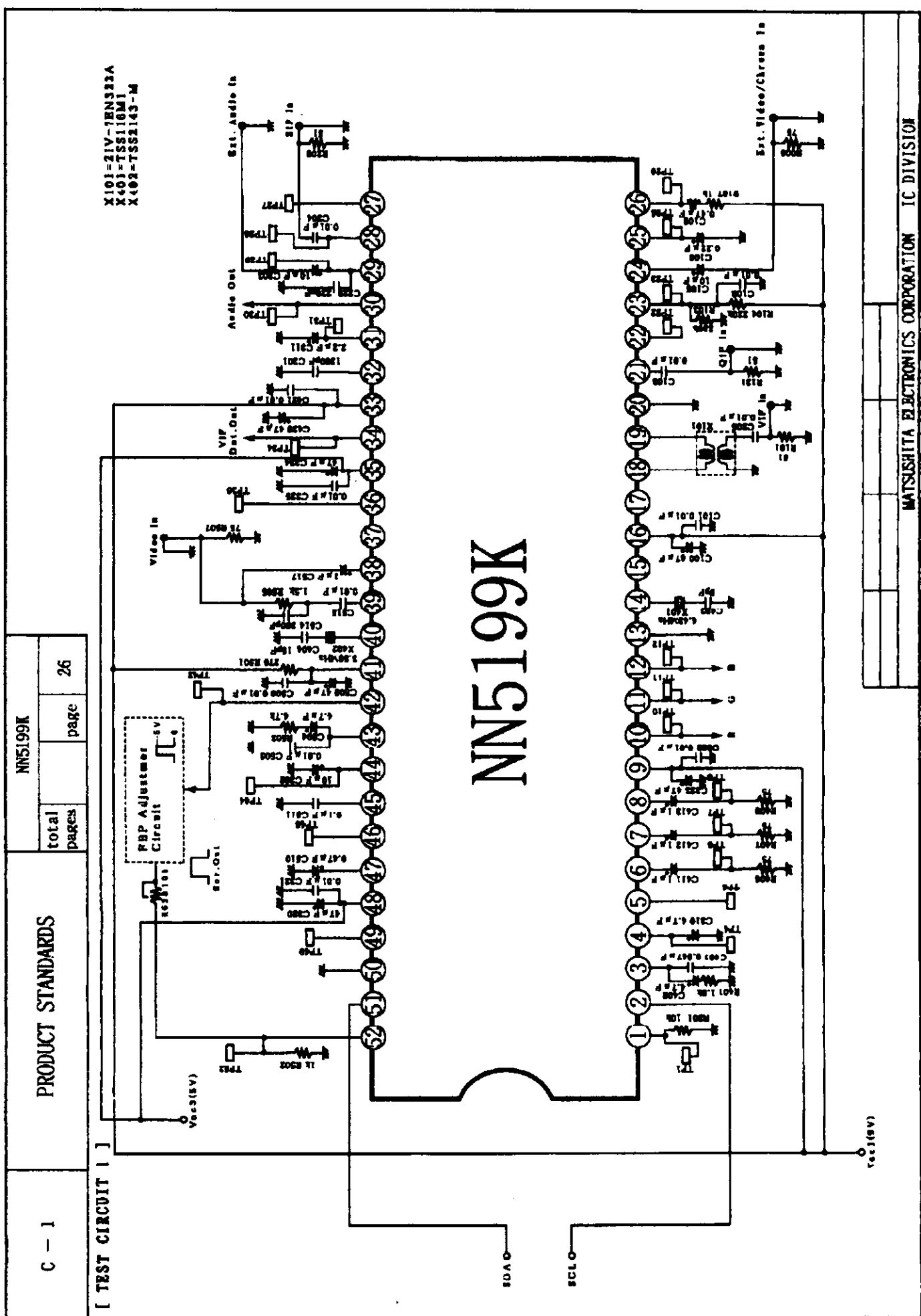
A	Absolute Maximum Ratings				
No.	Parameter	Symbol	Rating	Unit	Note
1	Storage Temperature	Tstg	-55 to +125	°C	1
2	Operating Ambient Temperature	Topr	-20 to +70	°C	1
3	Operating Ambient Pressure	Popr	$1.013 \times 10^5 + 0.61 \times 10^5$ (1.0±0.6)	Pa (atm)	
4	Operating Constant Acceleration	Gopr	9810 (1000)	m/s ² (G)	
5	Operating Shock	Sopr	4900 (500)	m/s ² (G)	
6	Supply Voltage	Vcc	Vcc1 10.5 Vcc3, VDD1 6.0	V	
7	Supply Current	Icc	I9+I16+I33 169 I35+I48 33 I41 35	mA	
8	Power Dissipation	PD	1830	mW	2

Operating Supply Voltage Range	Vcc1	8.5V to 9.5V
Operating Supply Voltage Range	Vcc3, 4	4.7V to 5.3V
Operating Supply Current Range	I41	7mA to 20mA

Note 1: The temperature of all items shall be Ta=25°C except storage temperature and operating ambient temperature.

Note 2: Power dissipation is at Ta=70°C (Refer to sheet No.62).

Note 3: Refer to sheet No.61 for surge and latch-up related precaution items.



NN5199K

X101=21V-TEN323A
X401=TSS116M1
X402=TSS2143-M

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[TEST CIRCUIT 1]

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[Pin Description]

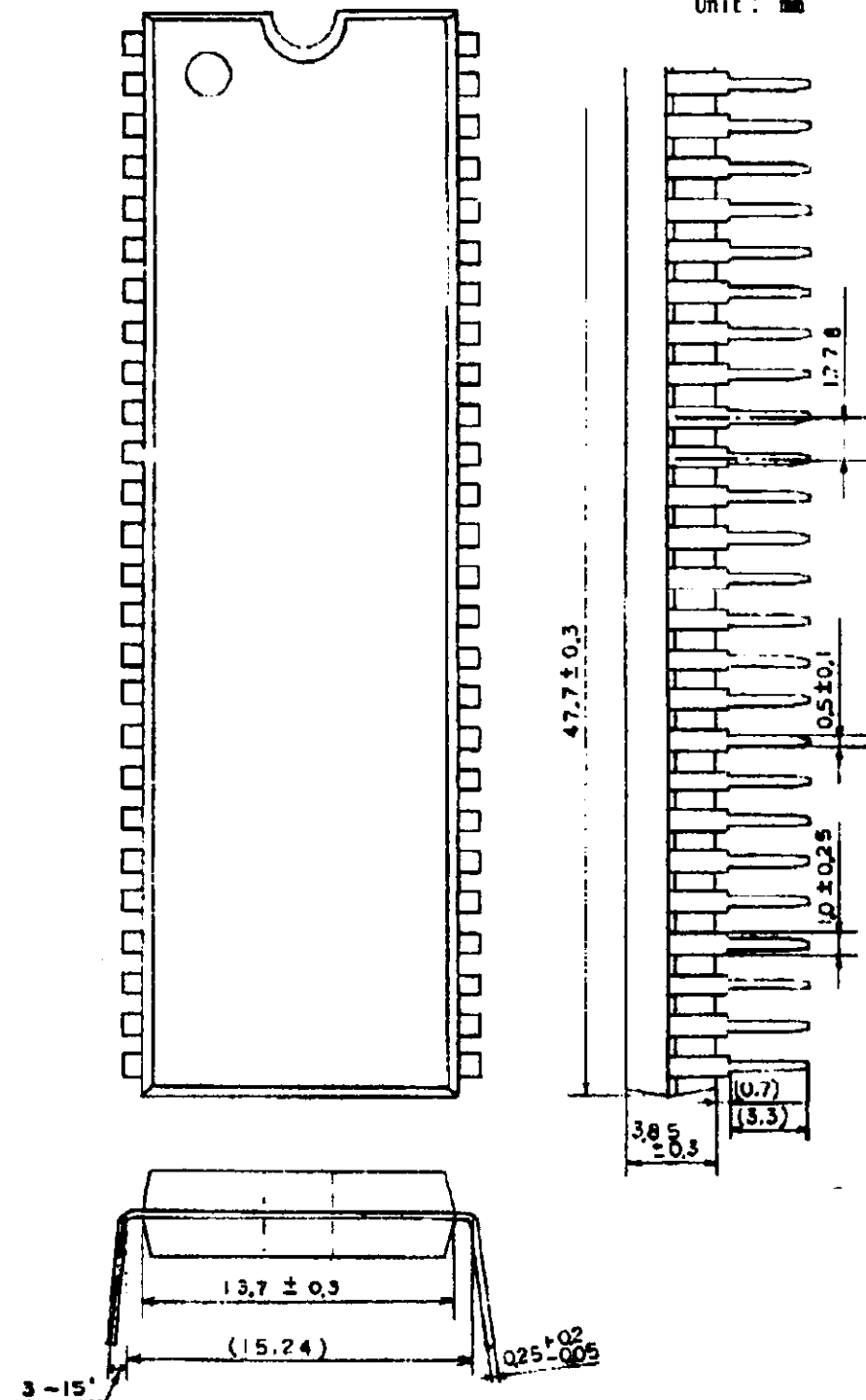
Pin NO.	Pin Description	Pin NO.	Pin Description
1	TEST	27	QIF DETECT OUTPUT
2	SCL	28	SIF INPUT
3	CHROMA APC FILTER	29	EXTERNAL AUDIO INPUT
4	ABCL	30	AUDIO OUTPUT
5	Ys INPUT	31	BLACK LEVEL DETECT FILTER
6	EXTERNAL R INPUT	32	DE-EMPHASIS FILTER /AUDIO MONITOR OUTPUT
7	EXTERNAL G INPUT	33	VCC1(CHROMA)
8	EXTERNAL B INPUT	34	VIF DETECT OUTPUT
9	VCC1(VCJ)	35	VCC3(DAC)
10	R OUTPUT	36	VIDEO OUTPUT
11	G OUTPUT	37	TEST2
12	B OUTPUT	38	Y INPUT/VERTICAL SYNC. INPUT
13	GND(VCJ)	39	HORIZONTAL SYNC. INPUT
14	CHROMA VCX01(4.43MHz)	40	CHROMA VCX02(3.58MHz)
15	N.C	41	VCC2(HORIZONTAL VCC)
16	VCC1(VIF/SIF)	42	HORIZONTAL PULSE OUTPUT
17	N.C	43	HORIZONTAL APC1 FILTER
18	VIF INPUT(1)	44	AUDIO DE-COUPPING FILTER
19	VIF INPUT(2)	45	VERTICAL SAW TOOTH
20	GND(VIF/SIF)	46	VERTICAL OUTPUT
21	QIF INPUT	47	VERTICAL AGC FILTER
22	RF AGC OUTPUT	48	VDD(CMOS)
23	AFT OUTPUT	49	SCP/CW OUTPUT/X-RAY
24	EXTERNAL VIDEO/CHROMA INPUT	50	VSS(CMOS)
25	IF AGC FILTER	51	SDA
26	VIF APC FILTER	52	FBP INPUT

Eff. Date	Eff. Date	Eff. Date	Eff. Date	
MATSUSHITA ELECTRONICS CORPORATION IC DIVISION				

Package Name

NFS-52D

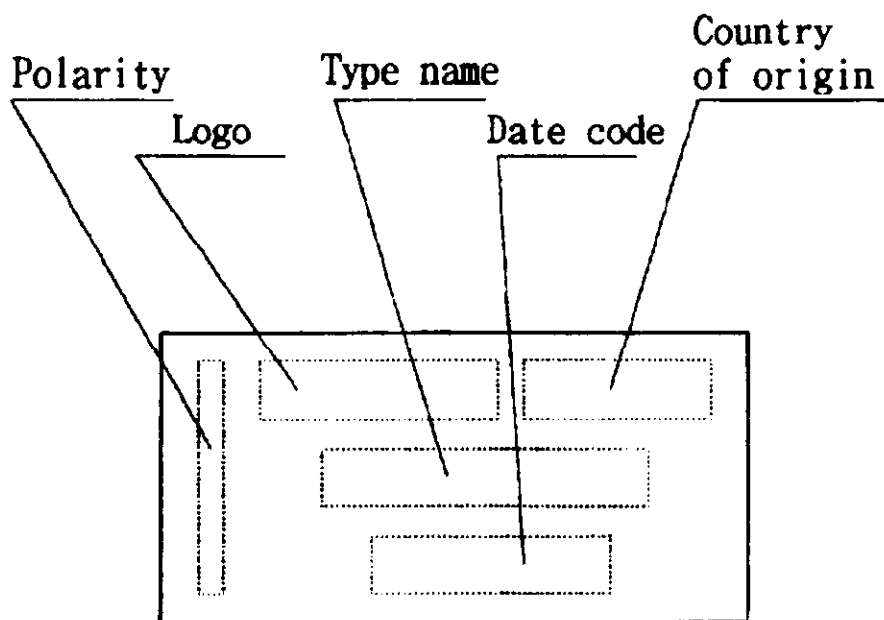
Unit: mm



Package : NFS-52D

Method : ~~Ink Marking~~ · Laser Marking

Layout : Standard

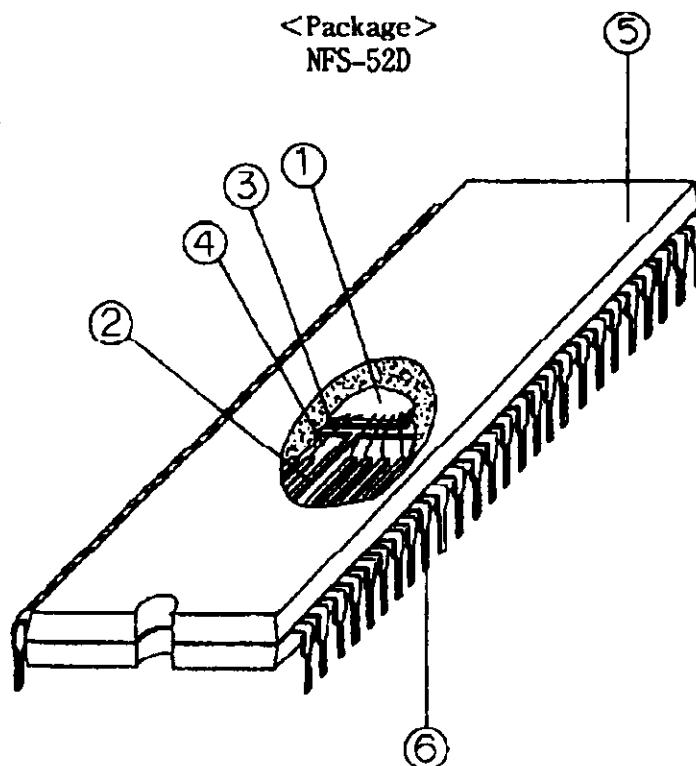
~~Special <Designated Rank/ Customer Code>~~

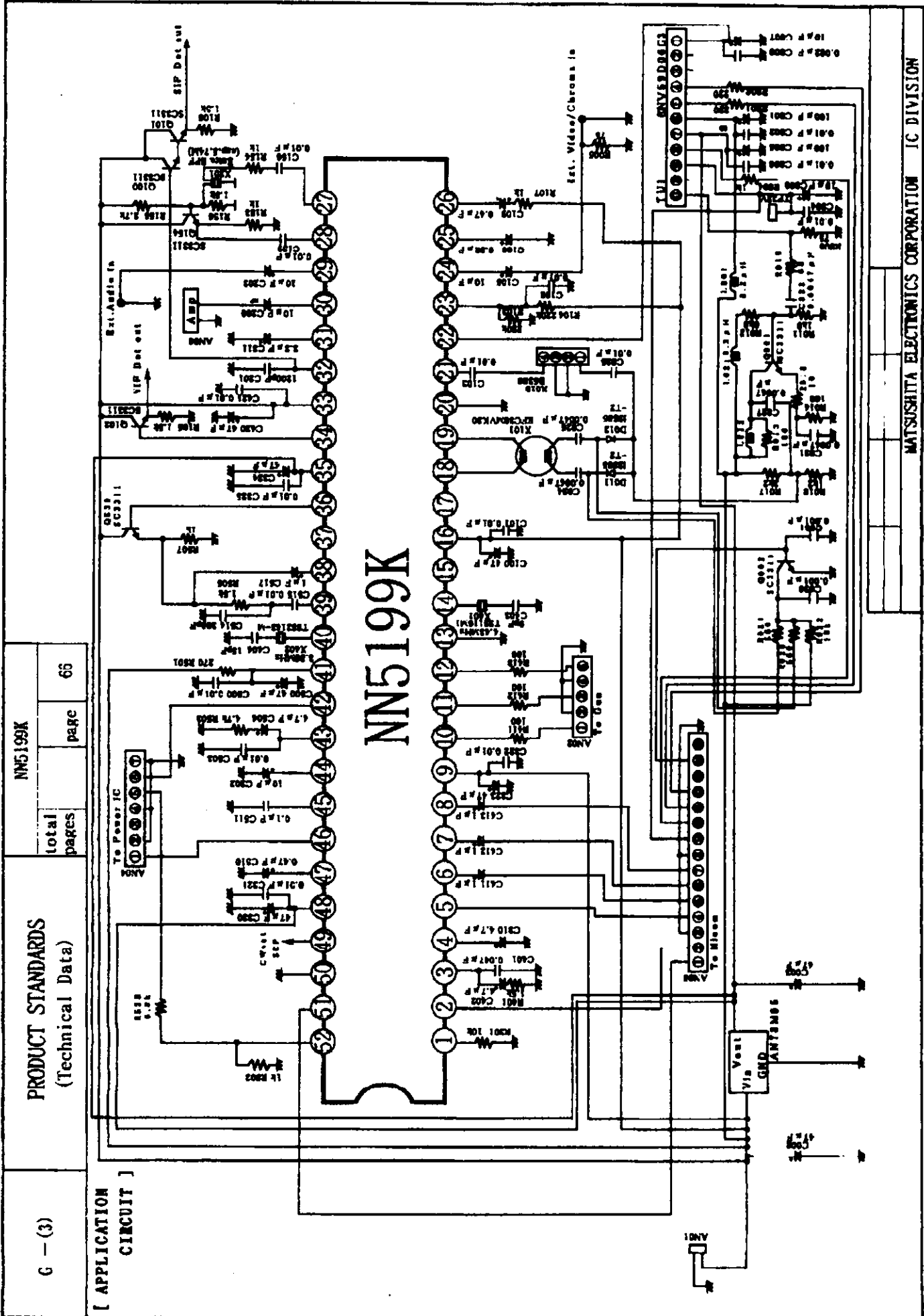
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[Structure]

Chip surface passivation	SIN	①
Lead frame material	Cu group	②,⑥
Internal lead surface treatment	Ag plating	②
External lead surface treatment	Solder dip	⑥
Chip mounting method	Ag paste	③
Wire bonding method	Thermosonic bonding	④
Wire material, diameter	Au, Diameter: 30 μ m	④
Mold material	Epoxy	⑤
Molding method	Multiplunger mold	⑤

<Package>
NFS-52D





G	Recommended Conditions					
No.	Item	Symbol	Recommended Range		Unit	Note
1	Pin Voltage	V_1	0	11	V	
2	Pin Voltage	V_2	0	6	V	
3	Pin Voltage	V_5	0	6	V	
4	Pin Voltage	V_{22}	0	V_{17}	V	
5	Pin Voltage	V_{23}	0	V_{17}	V	
6	Pin Voltage	V_{52}	0	V_9	V	
7	Circuit current	I_{10}	-4	4	mA	
8	Circuit current	I_{11}	-4	4	mA	
9	Circuit current	I_{12}	-4	4	mA	
10	Circuit current	I_{27}	-2	2	mA	
11	Circuit current	I_{28}	-0.15	0.15	mA	
12	Circuit current	I_{29}	-0.5	0.5	mA	
13	Circuit current	I_{34}	-2	2	mA	
14	Circuit current	I_{38}	-0.8	0.1	mA	
15	Circuit current	I_{39}	-0.8	0.1	mA	
16	Circuit current	I_{42}	-5	0.1	mA	
17	Circuit current	I_{46}	-2	2	mA	
18	Circuit current	I_{49}	-0.3	1	mA	

Note : Do not apply voltage or current externally to any pin not listed in this table.
As for circuit current, (+) is the current flowing into the IC and (-) is the current flowing out of the IC.