



OPERATIONAL AMPLIFIER ELECTRICAL CHARACTERISTICS TABLE

■ Bipolar

Power Supply	Circuit	Functions	Type No.	PKG	Recommended Supply Voltage	V _{io} Max (mV)	I _{io} typ. (nA)	I _{cc} typ. (mA)	GB. typ. (mHz)	S.R. typ. (V/μs)	Noise typ.	
Single Supply Type	Single	General	NJM2125F	MTP-5	+2.7~±20	2	5	1.0	1.2/f _r	1.2		
		High Speed /Wide Band /Low Vosat	NJM2716F	MTP-5	+2.7~1.2	10	200	4.2	30	40	-	
		Input/Output Full Swing	NJM2730F	MTP-5	+1.8~5.0	5	50	0.3	1.0	0.4	10nV/√Hz (en)	
	Dual	General		NJM2904D/MV/L	DIP/DMP/SSOP/SIP-8	+3~+32	2	5	0.7	0.6	0.5	
				NJM12904D/M/E/VR/L	DIP/DMP/EMP/SSOP/VSP/SIP-8	+2~+14	1	5	0.7	1.5	0.7	
				NJM2143R	VSP-8	+3~+20	2	5	0.7	0.6	0.5	
		Low Distortion		NJM3404D/MV/L	DIP/DMP/SSOP/SIP-8	+4~+36	2	5	2.0	1.2/f _r	1.2	
				NJM13404D/M/E/VR/L	DIP/DMP/EMP/SSOP/VSP/SIP-8	+2~+14	0.5	5	2.0	2.0	1.2	
		High Output		NJM3414AD/MV/L	DIP/DMP/SSOP/SIP-8	+3~+15	2	5	4.0	1.3	1.0	
		Low Power		NJM2132D/MV/L	DIP/DMP/SSOP/SIP-8	+2.7~+32	2	5	0.44	1.8	2.1	32nV/√Hz (en)
	Precision /Low Vosat		NJM2119D/M	DIP/DMP-8	+4~+36	0.09	0.3	1.0	1.0	0.3		
	Quad	General		NJM324D/MV	DIP/DMP/SSOP-14	+3~+32	2	5	0.7	-	-	
				NJM2902N/MV	DIP/DMP/SSOP-14	+3~+32	2	5	1.0	0.5	0.5	
				NJM12902D/M/E/V	DIP/DMP/EMP/SSOP-14	+2~+14	1	5	1.0	1.5	0.7	
		Low Distortion		NJM3403AD/MV	DIP/DMP/SSOP-14	+4~+36	2	5	3.0	1.2/f _r	1.2	
				NJM13403D/M/E/V	DIP/DMP/EMP/SSOP-14	+2~+14	0.5	5	3.0	2.0	1.2	
	Dual Supply Type	Single	General	NJM741D/MV	DIP/DMP/SSOP-8	±3~±18	2	5	1.7	-	0.5	
			Precision	NJMOP-07D/M	DIP/DMP-8	±3~±22	0.06	0.8	2.7	-	0.17	
High Speed			NJM318D/M	DIP/DMP-8	±5~±20	4	30	5.0	15/f _r	70		
Low Power				NJM4250D/MV	DIP/DMP/SSOP-8	±1~±18	6max.	20max.	0.1max	-	-	
				NJM2130F	MTP-5	±2~±18	1	1	0.08	-	0.5	50nV/√Hz (en)
Low Noise			NJM5534D/M	DIP/DMP-8	±3~±22	0.5	20	4.0	10	13	3.3nV/√Hz (en)	
Low Vosat			NJM2107F	MTP5	±1~±3.5	1	5	2.0	-	3.0		
Switch Type (2-in, 1-out x 1)				NJM2120D/ML	DIP/DMP/SIP-8	±2.5~±18	0.8	-	2.3	7.0/f _r	2.2	
			NJM2121D/ML	DIP/DMP/SIP-8	±2.5~±18	0.8	-	2.3	14/f _r	4.0		
Dual		High Speed Wide Band		NJM2136M/V	DIP/SSOP-8	±1.35~±6	1	20	0.63	200	45	
				NJM2711F	MTP-5	±2~±4.5	7.0	350	1.9	1000	260	6.8nV/√Hz (en)
		General		NJM1458D/M	DIP/DMP-8	±3~±18	2	5	3.3	-	0.5	
			NJM4558D/MV/L	DIP/DMP/SSOP/SIP-8	±4~±18	0.5	5	3.5	3.0	1.0		
			NJM14558D/M/E/VR/L	DIP/DMP/EMP/SSOP/VSP/SIP-8	±2~±7	0.5	5	2.7	5.0	2.5		
			NJM4559D/MV/L	DIP/DMP/SSOP/SIP-8	±4~±18	0.5	5	3.5	6.0	2.0		
	Low Power		NJM022D/MV/L	DIP/DMP/SSOP/SIP-8	±2~±18	1	1	0.13	-	0.5		
			NJM022BD/MV/L	DIP/DMP/SSOP/SIP-8	±2~±18	1	1	0.25	-	1.0		
	Wide Band		NJM2041D/ML	DIP/DMP/SIP-8	±4~±22	0.3	10	6.0	7.0	3.0	0.48μV(VNI)	
			NJM2043D/ML	DIP/DMP/SIP-8	±4~±22	0.3	10	6.0	14	6.0	0.4μV(VNI)	
		NJM2068D/MV/L	DIP/DMP/SSOP/SIP-8	±4~±18	0.3	5	5.0	27	6.0	0.44μV(VNI)		
		NJM4560D/ML	DIP/DMP/SIP-8	±4~±18	0.5	5	4.3	10	4.0	1.2μV(VNI)		
		NJM4565D/MV/L	DIP/DMP/SSOP/SIP-8	±4~±18	0.5	2	4.5	10	4.0	1.2μV(VNI)		
		NJM5532D/ML	DIP/DMP/SIP-8	±3~±22	0.5	10	9.0	10	8.0	5nV/√Hz (en)		

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■ Bipolar

Power Supply	Circuit	Functions	Type No.	PKG	Recommended Supply Voltage	V _{io} Max (mV)	I _{io} typ. (nA)	I _{cc} typ. (mA)	GB. typ. (MHz)	S.R. typ. (V/μs)	Noise typ.
Dual Supply Type	Dual	FET Input	NJM062D/MV/L	DIP/DMP/SSOP/SIP-8	±2~±18	3	1pA	0.2	1.0/f _T	3.5	35nV/√Hz (en)
			NJM072D/ML	DIP/DMP/SIP-8	±4~±18	3	5pA	3.0	5.0/f _T	20	4.0μVrms(VNI)
			NJM072BD/MV/L	DIP/DMP/SSOP/SIP-8	±4~±18	3	5pA	3.0	3.0/f _T	13	4.0μVrms(VNI)
			NJM082D/ML	DIP/DMP/SIP-8	±4~±18	5	5pA	3.0	5.0/f _T	20	4.0μVrms(VNI)
			NJM082B/D/MV/L	DIP/DMP/SSOP/SIP-8	±4~±18	5	5pA	3.0	3.0/f _T	13	4.0μVrms(VNI)
			NJM353D/M	DIP/DMP-8	±5~±18	5	25pA	3.6	4.0/f _T	13	16nV/√Hz (en)
			NJM2082D/MV/L	DIP/DMP/SSOP/SIP-8	±4~±18	2	5pA	4.0	5.0	20	1.6μV(VNI)
		NJM2162D/MV/L	DIP/DMP/SSOP/SIP-8	±2~18	5.0	1	1.2	3.0/f _T	10		
		Low Noise	NJM2041D/ML	DIP/DMP/SIP-8	±4~±22	0.3	1.0	6.0	7.0	3.0	0.48μV(VNI)
			NJM2043D/ML	DIP/DMP/SIP-8	±4~±22	0.3	1.0	6.0	14	6.0	0.4μV(VNI)
			NJM2068D/MV/L	DIP/DMP/SSOP/SIP-8	±4~±18	0.3	5	5.0	27	6.0	0.44μV(VNI)
			NJM2122D/M	DIP/DMP-8	±2~±10	1.0	0.45μA	7.0	12	2.4	1.5nV/√Hz
			NJM4560D/ML	DIP/DMP/SIP-8	±4~±18	0.5	5	4.3	10	4.0	1.2μV(VNI)
			NJM4562D/ML	DIP/DMP/SIP-8	±4~±18	0.5	5	3.5	-	-	0.6μVrms(VNI)
			NJM4565D/MV/L	DIP/DMP/SSOP/SIP-8	±4~±18	0.5	2	4.5	10	4.0	1.2μV(VNI)
		High Performance	NJM5532D/ML	DIP/DMP/SIP-8	±3~±22	0.5	10	9.0	10	8.0	5nV/√Hz (en)
			NJM2114D/ML	DIP/DMP/SIP-8	±3~±22	0.2	10	9.0	13	15	0.9μVrms(VNI)
		Low Vosat	NJM4580D/MV/E/L	DIP/DMP/SSOP/EMP/SIP-8	±2~±18	0.3	5	6.0	15	5.0	0.8μVrms(VNI)
			NJM2100D/MV/L	DIP/DMP/SSOP/SIP-8	±1~±3.5	1.0	100	3.5	12	4.0	
			NJM2115D/MV/L	DIP/DMP/SSOP/SIP-8	±1~±7	1.0	100	3.5	12	4.0	
		High Output Current	NJM2140R	VSP8	±1~±7	1.0	10	3.5	12	4	
	NJM4556AD/ML/V		DIP/DMP/SIP/SSOP-8	±2~±18	0.5	5	8/9	8.0	3.0		
	Switch Type (2-in, 1-out x 2)	NJM2141R	VSP8	±2~±10	0.5	5	2.7	8	3		
	High Voltage	NJM2123D/MV	DIP/DMP/SSOP-16	±3.6~±20 (±1.8~±10)	1.0	10	6.0	10	3		
	High Speed Wide Band	NJM2147D/M	DIP/DMP-8	±8~±28	1.0	1	0.175	-	0.5		
	Trans Conductance	NJM2137MV	DIP/SSOP-8	±1.35~±6	1	20	0.14	200	45		
		NJM2172M/RBI	DMP/TVSP-8	±2~±4.5	7	350	3.8	1,000	260	6.8nV/√Hz (en)	
	Quad	General	NJM13600D/MV	DIP/DMP/SSOP-14	-	0.4	-	2.6	-	50	
			NJM13700D/M	DIP/DMP-14	-	0.4	-	2.6	-	50	
			NJM2058D/MV	DIP/DMP/SSOP-14	±4~±18	0.5	5	7.0	-	1.0	
		Low Vosat	NJM2059D/MV	DIP/DMP/SSOP-14	±4~±18	0.5	5	7.0	6	2.0	
			NJM4741D/M	DIP/DMP-14	±4~±20	1.0	5	5.0	3.5	1.6	
			NJM2112D/MV	DIP/DMP/SSOP-14	±1~±7	1.0	100	8.0	9	3.2	
FET Input		NJM064D/MV	DIP/DMP/SSOP-14	±2~±18	3.0	1pA	0.8	1.0/f _T	3.5	35nV/√Hz (en)	
		NJM074D/MV	DIP/DMP/SSOP-14	±4~±18	3.0	5pA	6.0	3.0/f _T	13	4.0μVrms(VNI)	
		NJM084D/MV	DIP/DMP/SSOP-14	±4~±18	5.0	5pA	6.0	3.0/f _T	13	4.0μVrms(VNI)	
		NJM2164D/MV	DIP/DMP/SSOP-14	±2~±18	5.0	1	1.2	3.0/f _T	10		
Low Noise		NJM2060D/MV	DIP/DMP/SSOP-14	±4~±18	0.5	5	9.0	10	4.0	1.2μVrms(VNI)	
High Speed Wide Band		NJM2138MV	DIP/SSOP-14	±1.35~±6	1	20	2.27	200	45		
Hex		General	NJM2097M	DMP-24	±2~±7.5	0.5	20	15	10	5.0	
		High Speed Wide Band	NJM2116V	SSOP-20	±1.35~±6	1.0	3.0	3.0	200	4.5	
		Ultra High Speed /Wide Band	NJM2710MV	DMP20, SSOP20	±2.0~±4.5	7	350	11.4	180	260	en=6.8nV/√Hz

OPERATIONAL AMPLIFIER ELECTRICAL CHARACTERISTICS TABLE

■ C-MOS

Power Supply	Circuit	Functions	Type No.	PKG	Recommended Supply Voltage	V _{IO} Max (mV)	I _{IO} typ. (pA)	I _{DD} typ. (μA)	F _t typ. (MHz)	S.R. typ. (V/μs)	Noise typ.
Single Supply Type	Single	Low Voltage Operation Output Full Swing	NJU7001D/MV	DIP/DMP/SSOP-8	+1~+16	10	1	15	0.1	0.05	
	Dual		NJU7002D/M	DIP/DMP-8							
	Quad		NJU7004D/MV	DIP/DMP/SSOP-14							
	Single		NJU7021D/MV	DIP/DMP/SSOP-8	+3~+16	10	1	150	0.4	0.4	
	Dual		NJU7022D/M	DIP/DMP-8							
	Quad		NJU7024D/MV	DIP/DMP/SSOP-14							
	Single		NJU7031D/MV	DIP/DMP/SSOP-8	+3~+16	10	1	1000	1.5	3.5	
	Dual		NJU7032D/M	DIP/DMP-8							
	Quad		NJU7034D/MV	DIP/DMP/SSOP-14							
	Single	Low Voltage Operation Low V _{IO} Output Full Swing	NJU7051D/MV	DIP/DMP/SSOP-8	+1~+16	2	1	15	0.1	0.05	
	Dual		NJU7052D/M	DIP/DMP-8							
	Quad		NJU7054D/MV	DIP/DMP/SSOP-14							
	Single		NJU7061D/MV	DIP/DMP/SSOP-8	+3~+16	2	1	150	0.4	0.4	
	Dual		NJU7062D/M	DIP/DMP-8							
	Quad		NJU7064D/MV	DIP/DMP/SSOP-14							
	Single		NJU7071D/MV	DIP/DMP/SSOP-8	+3~+16	2	1	300	1.0	1.6	
	Dual		NJU7072D/M	DIP/DMP-8							
	Quad		NJU7074D/MV	DIP/DMP/SSOP-14							
	Single	Low Voltage Operation Output Full Swing	NJU7011F	MTP-5	+1~+5.5	10	1	15	0.2	0.1	
	Dual		NJU7014D/MV/R	DIP/DMP/SSOP/VSP-8							
	Single		NJU7012F	MTP-5							
	Dual		NJU7015D/MV/R	DIP/DMP/SSOP/VSP-8	+1~+5.5	10	1	80	1.0	1.0	
	Single		NJU7013F	MTP-5							
	Dual		NJU7016D/MV/R	DIP/DMP/SSOP/VSP-8							
	Single		NJU7017F	MTP-5	+1~+5.5	10	1	750	1.0	3.7	
	Single		NJU7018	DIP/DMP/SSOP/VSP-8							
	Single		NJU7019	VSP-8							
	Single	Low Voltage Operation Low V _{IO} Output Full Swing	NJU7091AF	MTP-5	+1~+5.5	2	1	15	0.2	0.1	
	Dual		NJU7094D/MV/R	DIP/DMP/SSOP/VSP-8							
	Single		NJU7092AF	MTP-5							
Dual	NJU7095D/MV/R		DIP/DMP/SSOP/VSP-8	+1~+5.5	2	1	80	1.0	1.0		
Single	NJU7093AF		MTP-5								
Dual	NJU7096D/MV/R		DIP/DMP/SSOP/VSP-8								
Single	NJU7006		MTP-5	+1.8~+3.6	2	1	3	0.095	0.04		
Single	NJU7007F2		SC88A	1.0~5.5	4	1	15	0.2	0.1		
Single	NJU7008F2		SC88A	1.0~5.5	4	1	200	1	2.4		
Single	Input/Output Full Swing	NJU7042F	MTP5	2.7~5.5	5	1	15	0.047	0.03		
Single	NJU7043D/MV/RBI	DIP/DMP/SSOP/TVSP-8	1.8~5.0	10	1	600	0.8GB	0.7	40nV/√Hz (en)		