LOW NOISE PRE AMPLIFIER FOR AUTOREVERSE CAR STEREO.

KIA2025P/F contains dual amplifier, forward, reverse control switches and metal, normal tape equalizer control switches.

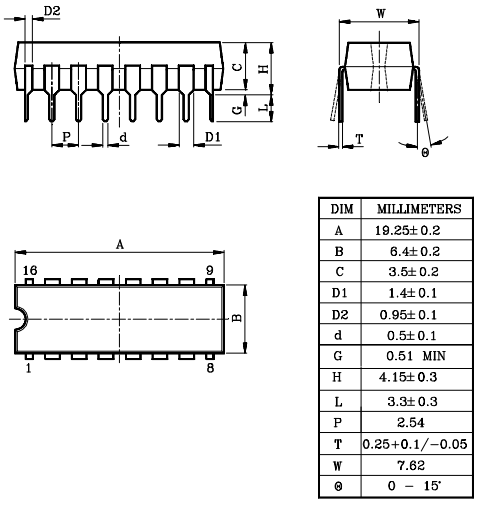
FEATURES

- High Voltage Gain
  : G_{VO}=100dB(Typ.) (V_{CC}=9V, f=1kHz)
- No input coupling capacitor
- Low Noise (equivalent noise voltage)
  : V_{NI}=0.6μVrms(Typ.) (V_{CC}=9V, Rg=620Ω, BW=20Hz～20kHz, NAB EQ)
- Low Distortion : THD=0.01%(Typ.)
- Operating supply voltage range : $V_{CC(opr)}$=6～16V

MAXIMUM RATINGS (Ta=25℃)

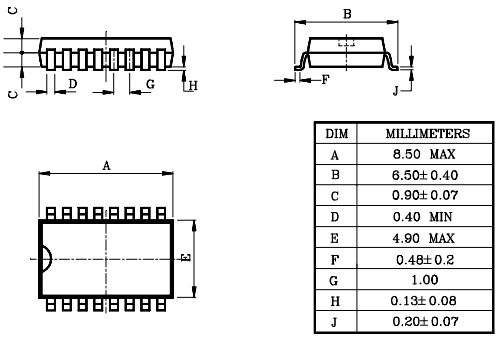
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	16	V
Power Dissipation (Note)	P_D	350	mW
Operating Temperature	T_{opr}	-30～85	℃
Storage Temperature	T_{stg}	-55～150	℃

(Note) Derated above Ta=25℃ in the proportion of 6mW/℃ for KIA2025P and of 2.8mW/℃ for KIA2025F.



DIM	MILLIMETERS
A	19.25± 0.2
B	6.4± 0.2
C	3.5± 0.2
D1	1.4± 0.1
D2	0.95± 0.1
d	0.5± 0.1
G	0.51 MIN
H	4.15± 0.3
L	3.3± 0.3
P	2.54
T	0.25+0.1/−0.05
W	7.62
θ	0 ~ 15°

DIP−16



DIM	MILLIMETERS
A	8.50 MAX
B	6.50± 0.40
C	0.90± 0.07
D	0.40 MIN
E	4.90 MAX
F	0.48± 0.2
G	1.00
H	0.13± 0.08
J	0.20± 0.07

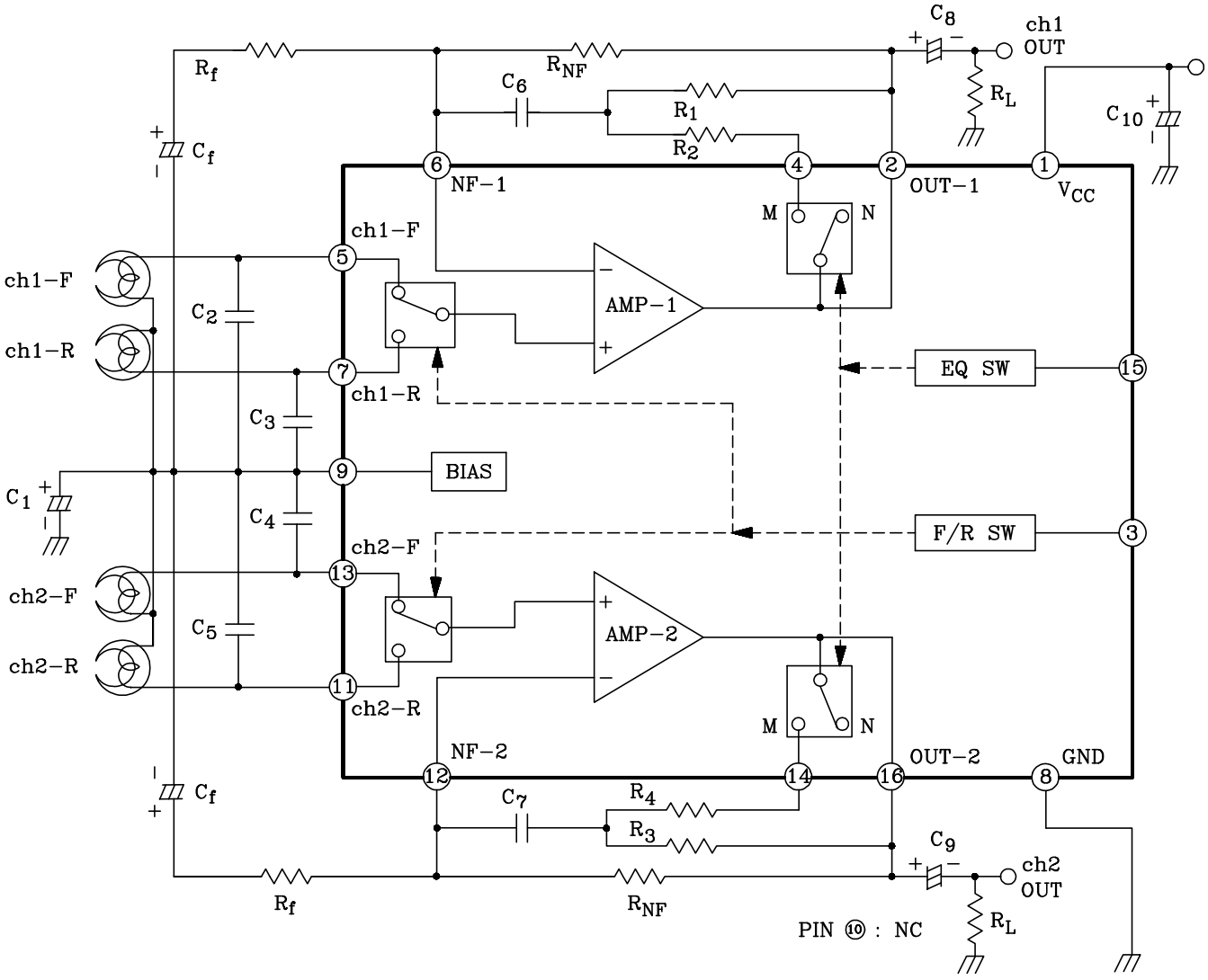
MFP−16

ELECTRICAL CHARACTERISTICS

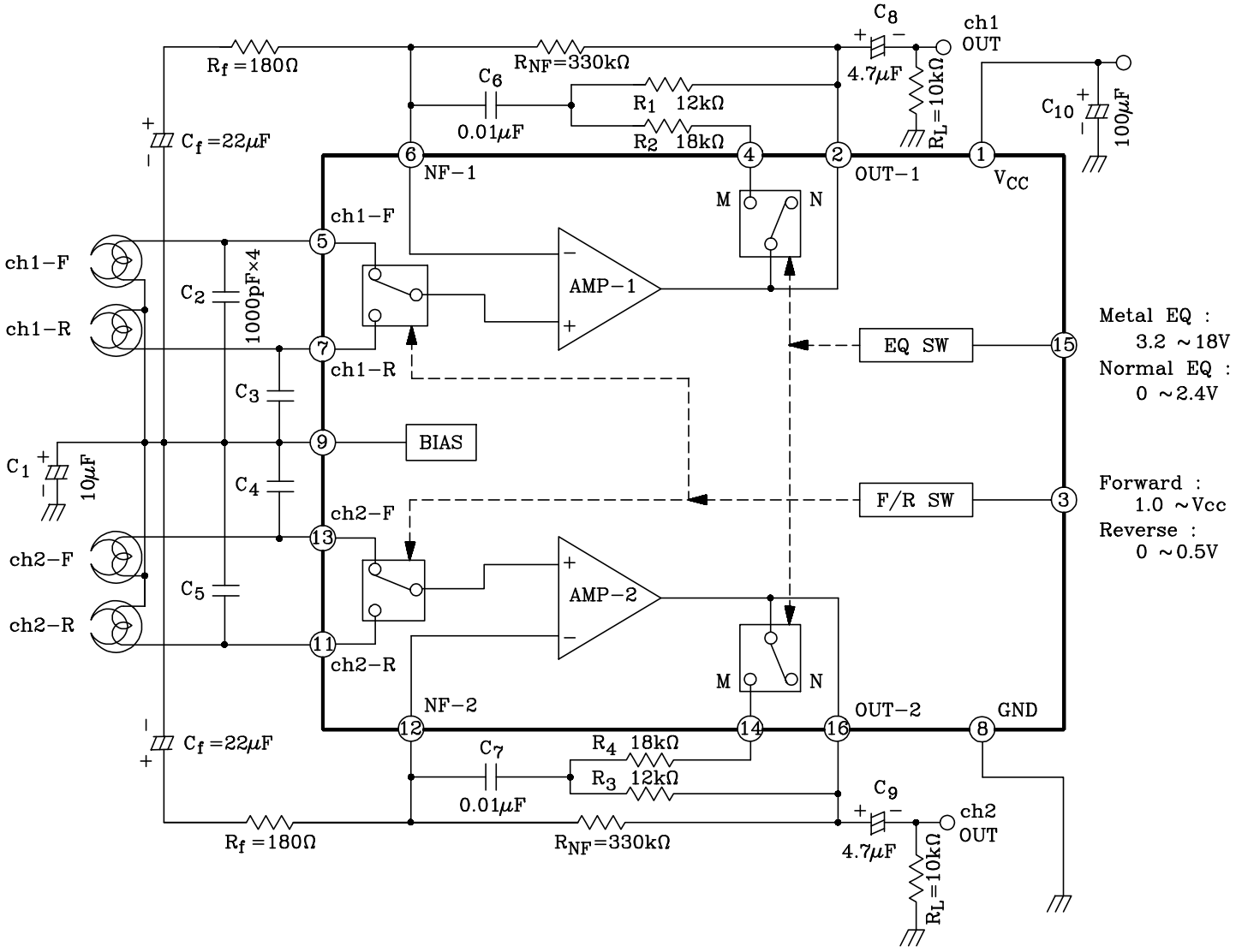
(Unless otherwise specified, V_{CC}=9V, f=1kHz, R_L=10kΩ, Rg=600Ω, Ta=25℃, Normal EQ)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	I_{CCQ}(1)	-	V_{IN}=0, Normal EQ	-	6.0	-	mA
	I_{CCQ}(2)	-	V_{IN}=0, Metal EQ	-	7.0	10.0	
Open Loop Voltage Gain	G_{VO}	-	C_f=100μF, R_f=0	-	100	-	dB
Maximum Output Voltage	V_{OM}	-	THD=0.5%	1.5	2.1	-	V_{rms}
Total Harmonic Distortion	THD	-	V_{OUT}=0.5V_{rms}	-	0.01	0.06	%
Equivalent Input Noise Voltage	V_{NI}	-	Rg=620Ω, NAB BW=20Hz~20kHz	-	0.6	1.2	μV_{rms}
Input Resistance	R_{IN}	-	-	-	330	-	kΩ
Ripple Rejection	R.R	-	f=100Hz, V_{IN}=1V_{rms}	-	56	-	dB
Cross Talk	C.T	-	V_{OUT}=0.775V_{rms} (0dBm)	50	60	-	dB
Forward/Reverse Cross Talk	C.T(F/R)	-	V_{OUT}=0.775V_{rms} (0dBm)	60	70	-	dB

BLOCK DIAGRAM



APPLICATION CIRCUIT



PIN ⑩ : NC