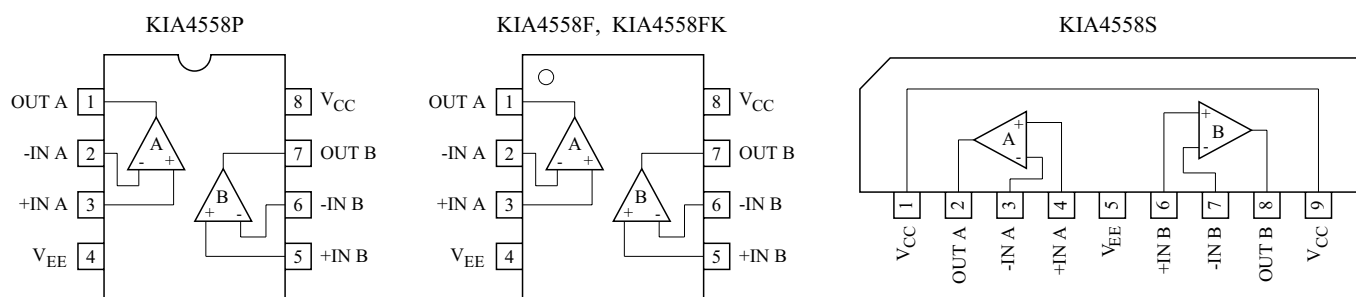


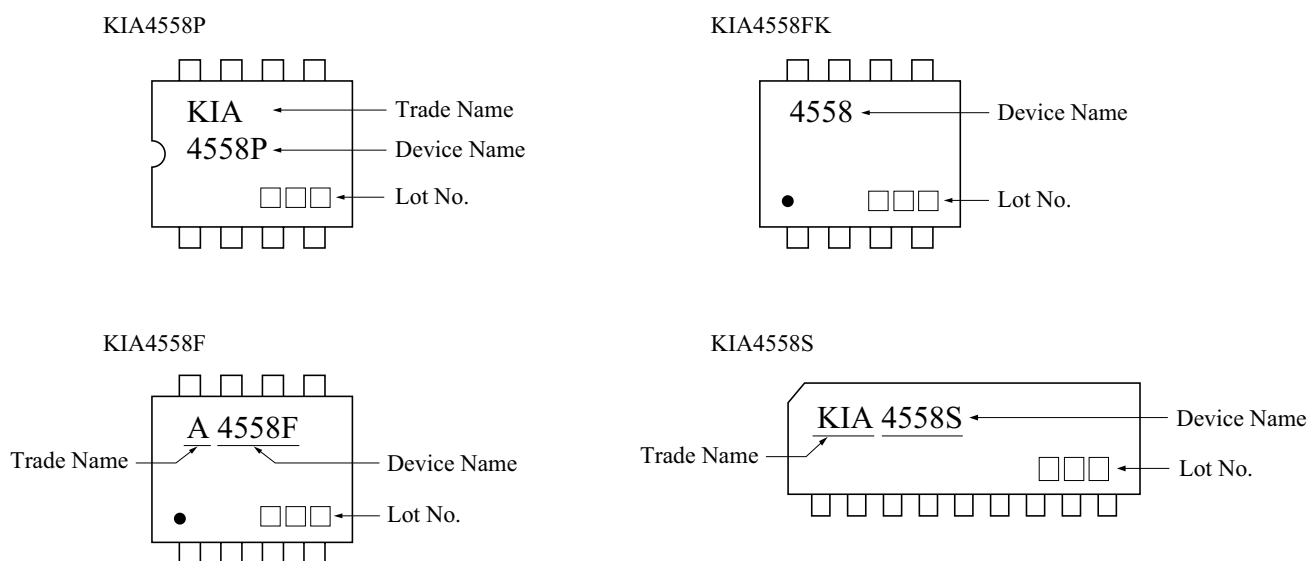
DUAL LOW NOISE OPERATIONAL AMPLIFIER

- Internal Frequency Compensation Type.
- Possible to Exchange the Position of Pin ⑨ for Pin ① Because of Pin Connection Being Symmetric. (KIA4558S Device Only).
- Pin ① and Pin ⑨ of lead frame was each other connected. (KIA4558S Only).
- Wide Band Range : $f_T=3\text{MHz}$ (Typ.)
- Suitable Application for Active Filter and Equalizer Amplifier.

PIN CONNECTION (TOP VIEW)

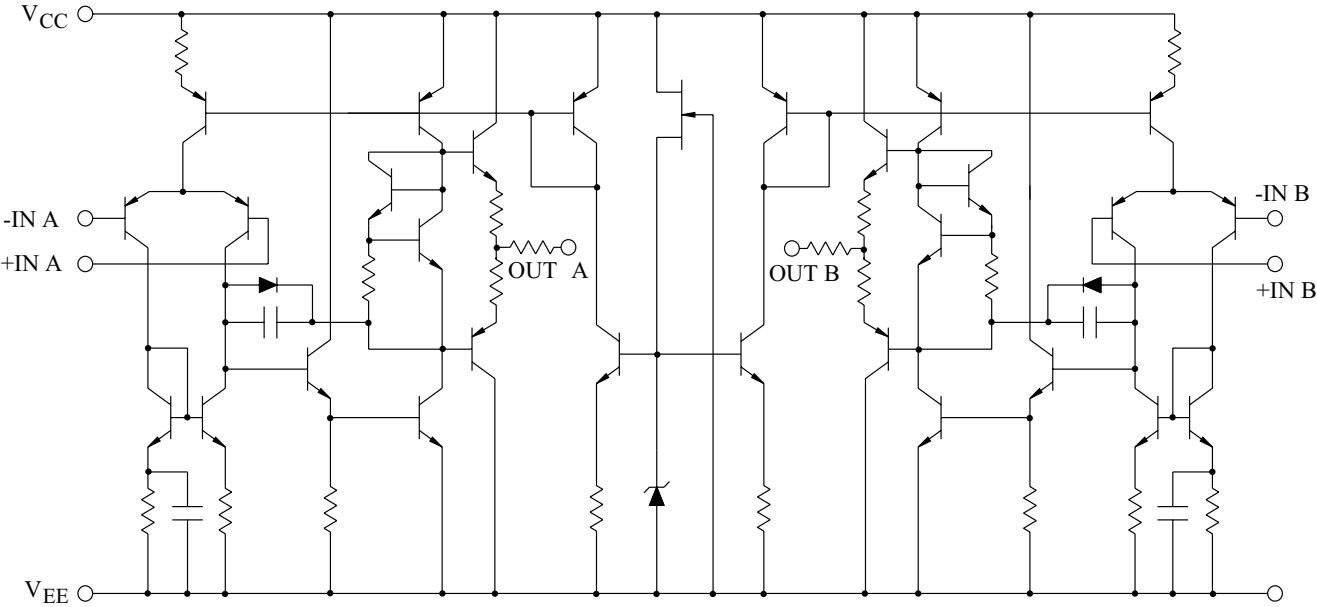


MARKING



KIA4558P/S/F/FK

EQUIVALENT CIRCUIT



MAXIMUM RATINGS (Ta=25 °C)

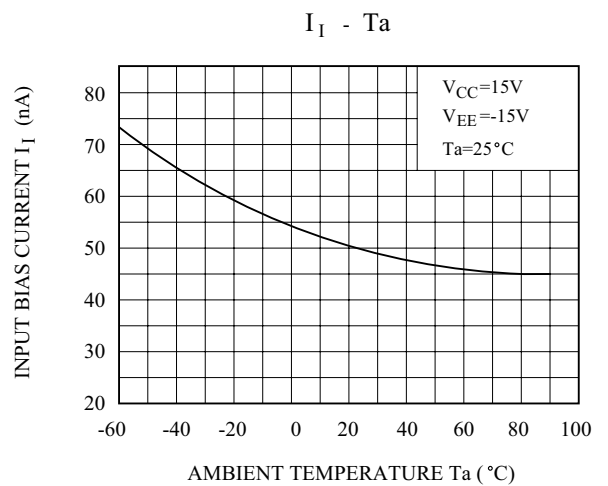
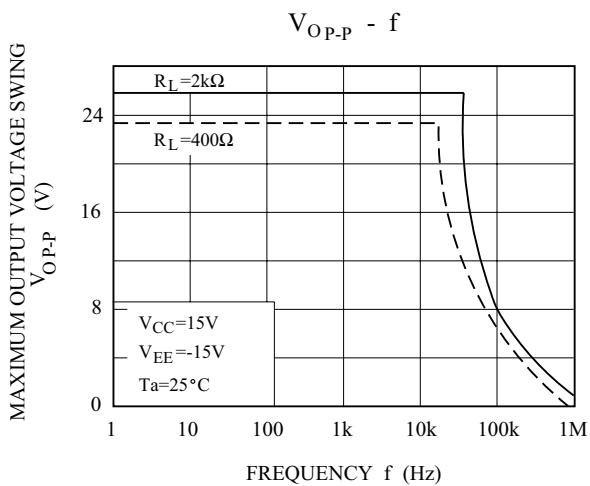
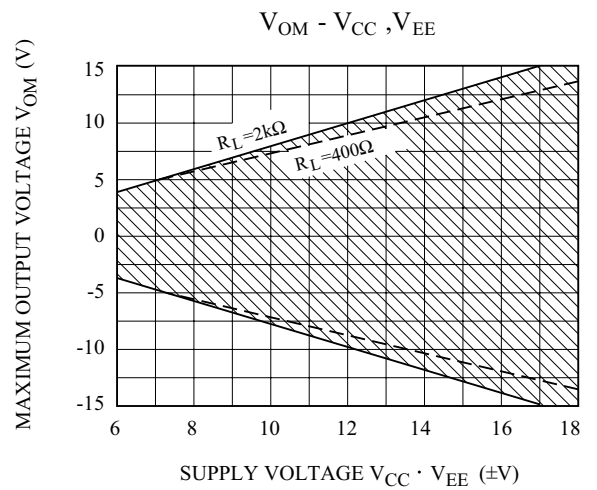
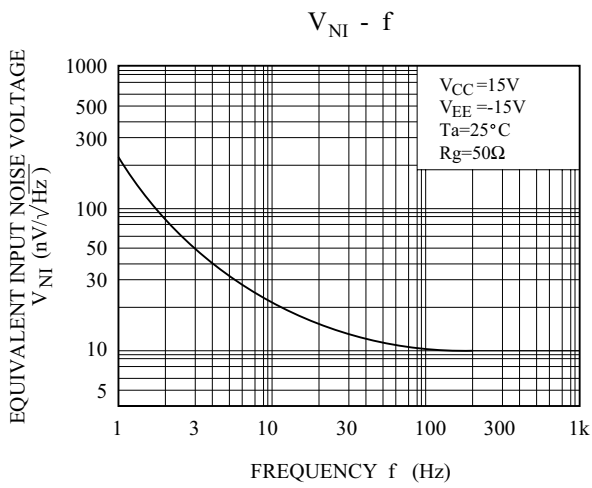
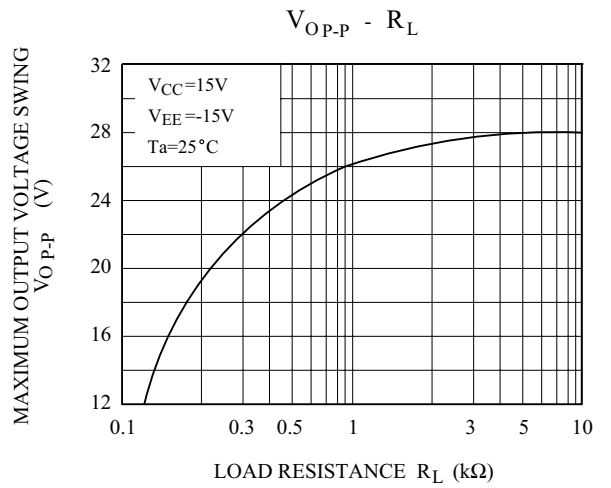
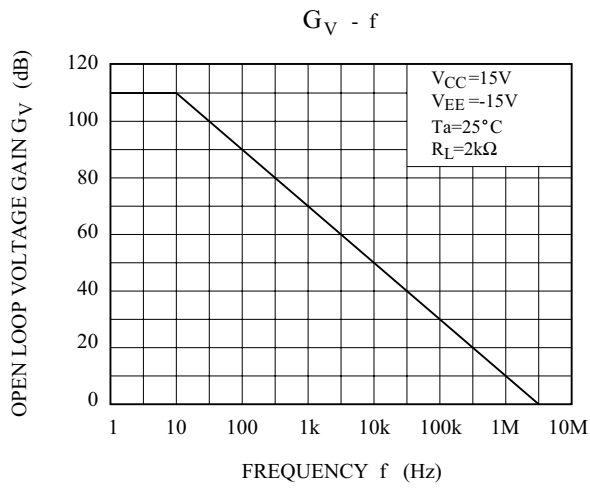
CHARACTERISTIC		SYMBOL	RATING	UNIT
Supply Voltage		V_{CC} V_{EE}	36,+18 or 0,-18	V
Differential Voltage		D_{VIN}	± 30	V
Input Voltage		V_{IN}	$V_{CC} \sim V_{EE}$	V
Power Dissipation	KIA4558P/S	P_D	500	mW
	KIA4558F		240	
	KIA4558FK		200	
Operating Temperature		T_{opr}	-40 ~ 85	°C
Storage Temperature		T_{stg}	-55 ~ 125	°C
Pin① to Pin ⑨ Maximum Current	KIA4558S	I_{max}	1	A

KIA4558P/S/F/FK

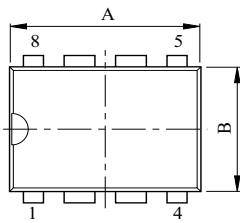
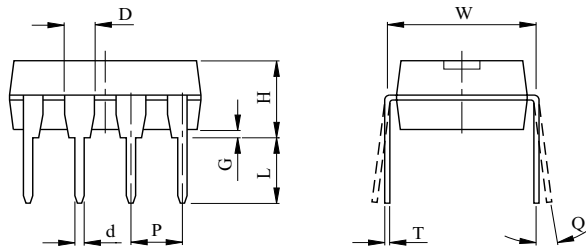
ELECTRICAL CHARACTERISTICS ($V_{CC}=15V$, $V_{EE}=-15V$, $T_a=25\text{ }^{\circ}C$)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	V_{IO}	-	$R_g \leq 10k\Omega$	-	0.5	6	mV
Input Offset Current	I_{IO}	-	-	-	5	200	nA
Input Bias Current	I_I	-	-	-	60	500	nA
Common Mode Input Voltage	CMV_{IN}	-	-	± 12	± 14	-	V
Maximum Output Voltage	V_{OM}	-	$R_L=10k\Omega$	± 12	± 14	-	V
	V_{OMR}		$R_L=2k\Omega$	± 10	± 13	-	
Source Current	I_{source}	-	-	27	-	-	mA
Sink Current	I_{sink}	-	-	27	-	-	mA
Voltage Gain (Open Loop)	G_V	-	$V_{OUT}=\pm 10V$, $R_L=2k\Omega$	86	100	-	dB
Common Mode Input Signal Rejection Ratio	CMRR	-	$R_g \leq 10k\Omega$	70	90	-	dB
Supply Voltage Rejection Ratio	SVRR	-	$R_g \leq 10k\Omega$	-	30	150	$\mu V/V$
Slew Rate	SR	-	$G_V=1$, $R_L=2k\Omega$	-	1.0	-	$V/\mu s$
Unity Gain Cross Frequency	f_T	-	Open Loop	-	3.0	-	MHz
Supply Current	I_{CC} , I_{EE}	-	-	-	4.0	6.0	mA
Equivalent Input Noise Voltage	V_{NI}	-	$R_S=1k\Omega$, $f=30Hz \sim 30kHz$	-	2.5	-	μV_{rms}

KIA4558P/S/F/FK

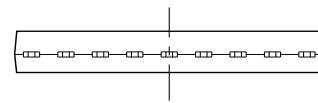
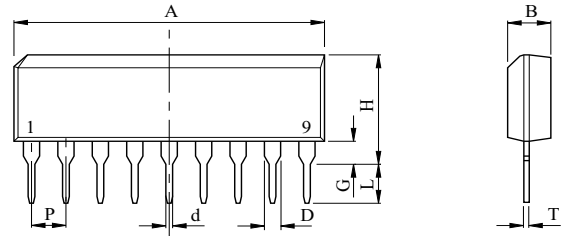


KIA4558P/S/F/FK



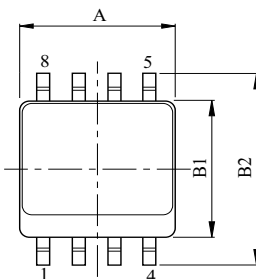
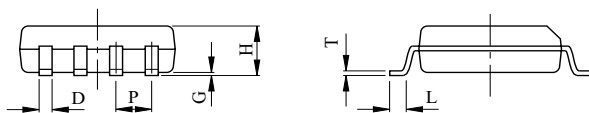
DIM	MILLIMETERS
A	9.6±0.2
B	6.45±0.2
D	1.52±0.1
d	0.46±0.1
G	0.50 MIN
H	3.8±0.3
L	3.3±0.3
P	2.54
T	0.25+0.1/-0.05
W	7.62
Q	0 - 15°

DIP-8



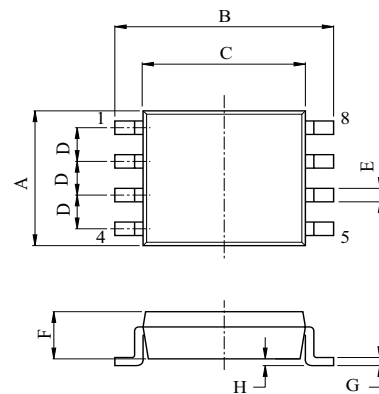
DIM	MILLIMETERS
A	22.48±0.2
B	3.2±0.2
D	1.2±0.25
d	0.5±0.1
G	1.95±0.2
H	7.7±0.3
L	3.2±0.3
P	2.54
T	0.25+0.1/-0.05

SIP-9



DIM	MILLIMETERS
A	4.85±0.2
B1	3.94±0.2
B2	6.02±0.3
D	0.4±0.1
G	0.15+0.1/-0.05
H	1.63±0.2
L	0.65±0.2
P	1.27
T	0.20+0.1/-0.05

FLP-8



DIM	MILLIMETERS
A	2.0±0.1
B	3.1±0.1
C	2.3±0.1
D	0.5
E	0.2+0.05/-0.04
F	0.7±0.1
G	0.12±0.04
H	0 ~ 0.1

US8