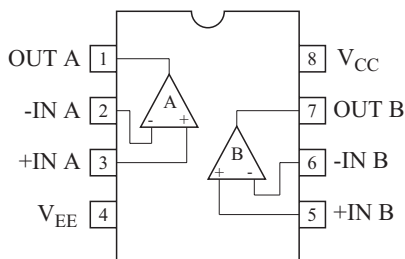


DUAL COMPARATOR

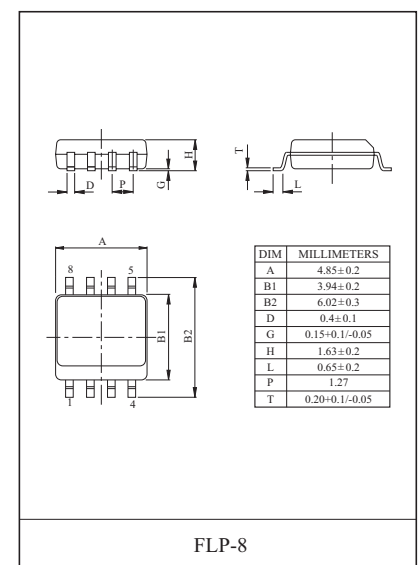
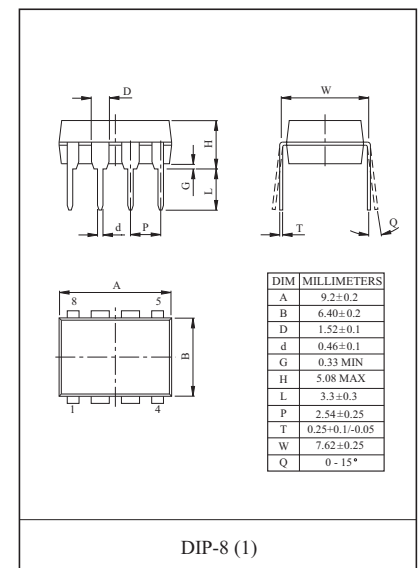
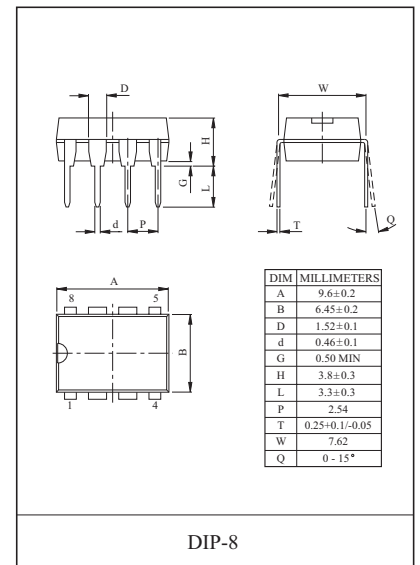
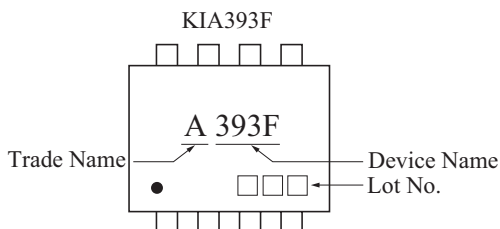
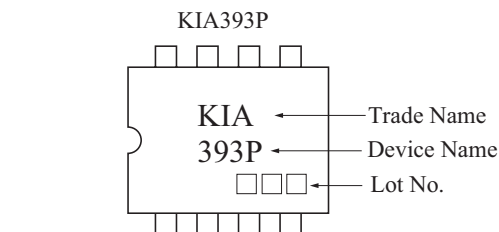
FEATURES

- Be Possible to Operate at the Wide Range Single or Two Supply Voltage.
- Low Supply Current : $I_{CC}=0.8mA(Typ.)$.
- Low Input Offset Voltage : $V_{IO}=2mV(Typ.)$.
- Wide Common Mode Input Voltage : $0V_{DC}$ to $V_{CC}-1.5V_{DC}$.
- Output is Compatible with TTL, DTL, MOS and C-MOS.
- Output is Open Collector and Wired-OR Possible.
- ESD Protection (JEDEC-JESD22).
 - 2000V Human Body Model (A114, CLASS 1).
 - 200V Machine Model (A115, CLASS B).

PIN CONNECTION(TOP VIEW)

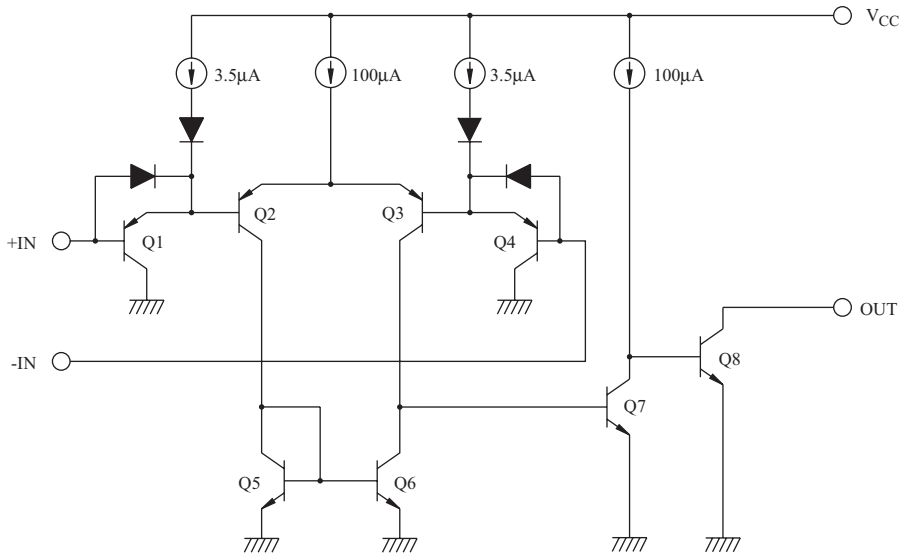


MARKING



KIA393P/F

EQUIVALENT CIRCUIT



MAXIMUM RATINGS (Ta=25 °C)

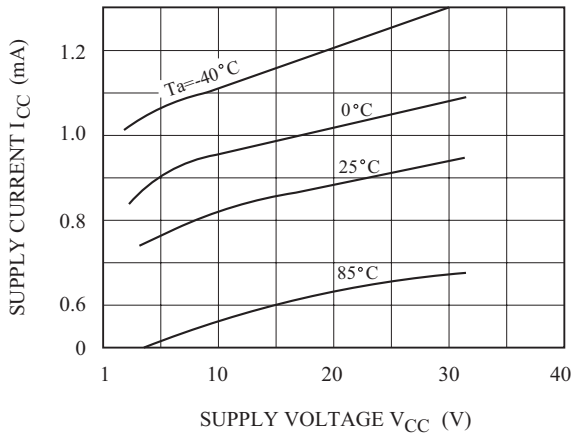
| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|----------------------------|------------|--------------------|------|
| Supply Voltage | V_{CC} | $\pm 18, 36$ | V |
| Differential Input Voltage | DV_{IN} | $\pm 18, 36$ | V |
| Common Mode Input Voltage | CMV_{IN} | $-0.3 \sim V_{CC}$ | V |
| Power Dissipation | KIA393P | 500 | mW |
| | KIA393F | 240 | |
| Operating Temperature | T_{opr} | -40 ~ 85 | |
| Storage Temperature | T_{stg} | -55 ~ 125 | |

ELECTRICAL CHARACTERISTICS ($V_{CC}=5V$, $V_{EE}=GND$, $T_a=25^\circ C$)

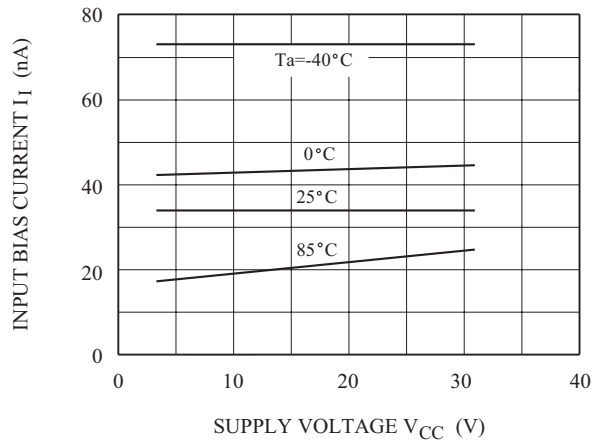
| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|----------------------------|------------|--------------------------------|------|------|--------------|---------|
| Input Offset Voltage | V_{IO} | $V_O=1.4V$ | - | 2 | 5 | mV |
| Input Offset Current | I_{IO} | - | - | 5 | 50 | nA |
| Input Bias Current | I_I | - | - | 25 | 250 | nA |
| Common Mode Input Voltage | CMV_{IN} | - | 0 | - | $V_{CC}-1.5$ | V |
| Voltage Gain | G_V | $R_L=15k$ | - | 200 | - | V/mV |
| Supply Current | I_{CC} | No load | - | 0.8 | 2 | mA |
| Sink Current | I_{sink} | +IN=0V, -IN=1V, $V_{OL}=1.5V$ | 6 | 16 | - | mA |
| Output Voltage ("L" Level) | V_{OL} | +IN=0V, -IN=1V, $I_{sink}=3mA$ | - | 0.2 | 0.4 | V |
| Output Leak Current | I_{LEAK} | +IN=1V, -IN=0V, $V_O=5V$ | - | 0.1 | - | nA |
| Response Time | t_{rsp} | $R_L=5.1k$, $C_L=15pF$ | - | 1.3 | - | μs |

KIA393P/F

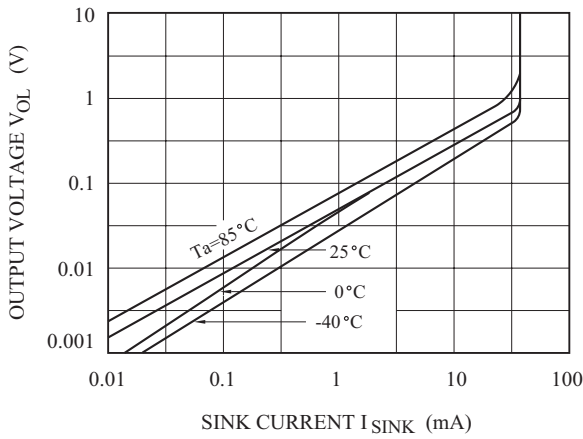
$V_{CC} - I_{CC}$



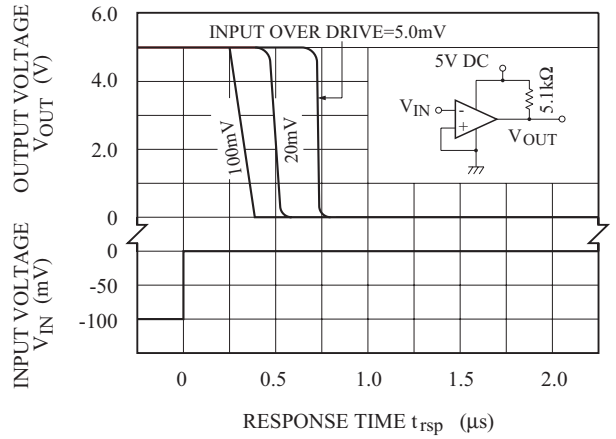
$V_{CC} - I_I$



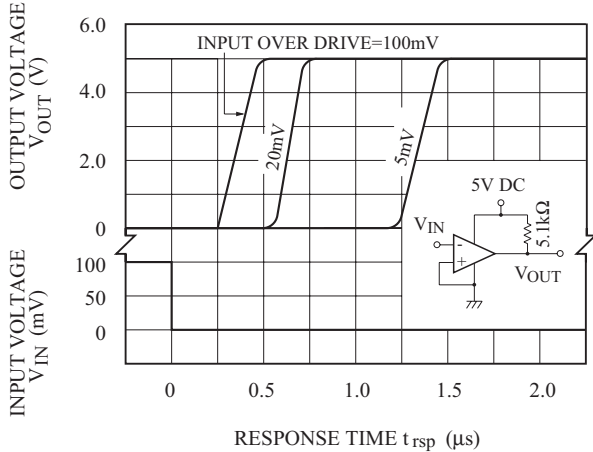
$V_{OL} - I_{SINK}$



$V_{IN}, V_{OUT} - t_{rsp}$



$V_{IN}, V_{OUT} - t_{rsp}$



$P_D - T_a$

