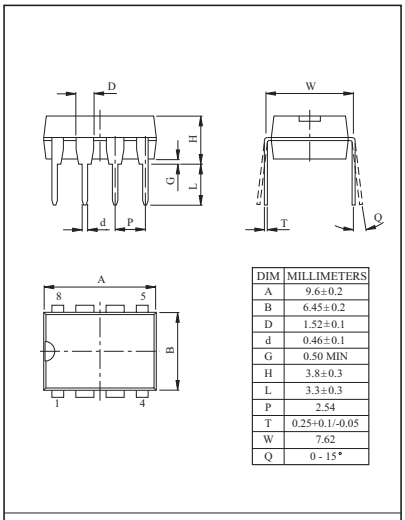
DUAL COMPARATOR

FEATURES

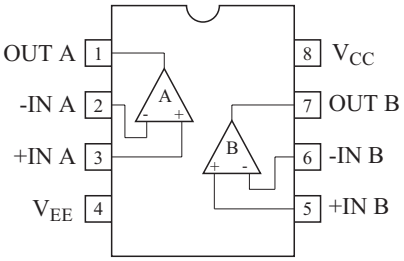
- Be Possible to Operate at the Wide Range Single or Two Supply Voltage.
- Low Supply Current : I_{CC}=0.8mA(Typ.).
- Low Input Offset Voltage : V_{IO}=2mV(Typ.).
- Wide Common Mode Input Voltage : $0V_{DC}$ to V_{CC}-$1.5V_{DC.}$
- Output is Compatible with TTL, DTL, MOS and C-MOS.
- Output is Open Collector and Wired-OR Possible.
- ESD Protection (JEDEC-JESD22).
  - 2000V Human Body Model (A114, CLASS Ⅱ).
  - 200V Machime Model (A115, CLASS B).
- Suffix **U** : Qualified to AEC-Q100 (Grade 1)
  ex) KIA393F-EL/P**U**

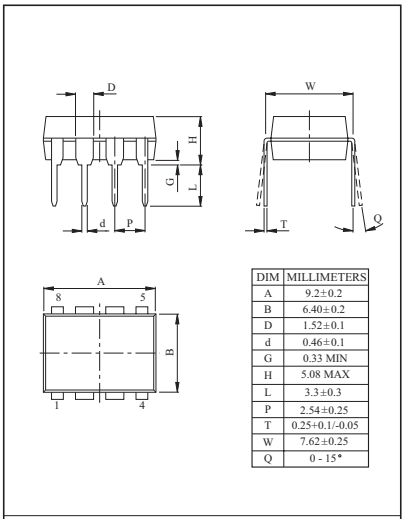


DIM	MILLIMETERS
A	9.6±0.2
B	6.45±0.2
D	1.52±0.1
d	0.46±0.1
G	0.50 MIN
H	3.8±0.3
L	3.3±0.3
P	2.54
T	0.25+0.1/-0.05
W	7.62
Q	0 - 15°

DIP-8

PIN CONNECTION(TOP VIEW)



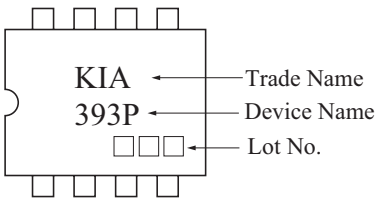


DIM	MILLIMETERS
A	9.2±0.2
B	6.40±0.2
D	1.52±0.1
d	0.46±0.1
G	0.33 MIN
H	5.08 MAX
L	3.3±0.3
P	2.54±0.25
T	0.25+0.1/-0.05
W	7.62±0.25
Q	0 - 15°

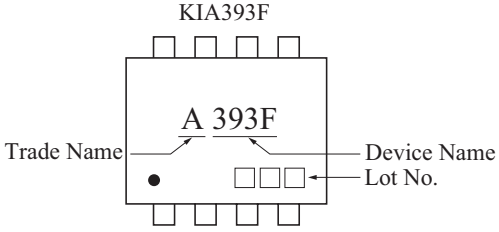
DIP-8 (1)

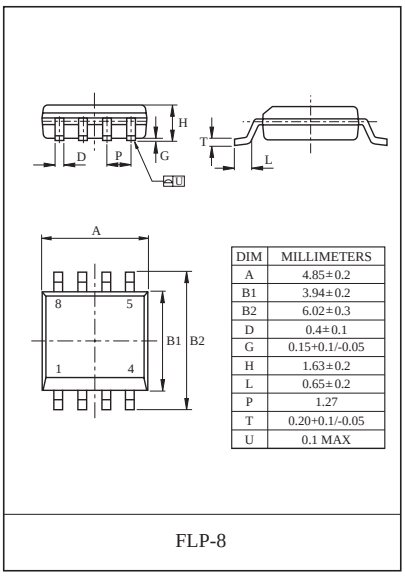
MARKING

KIA393P



KIA393F

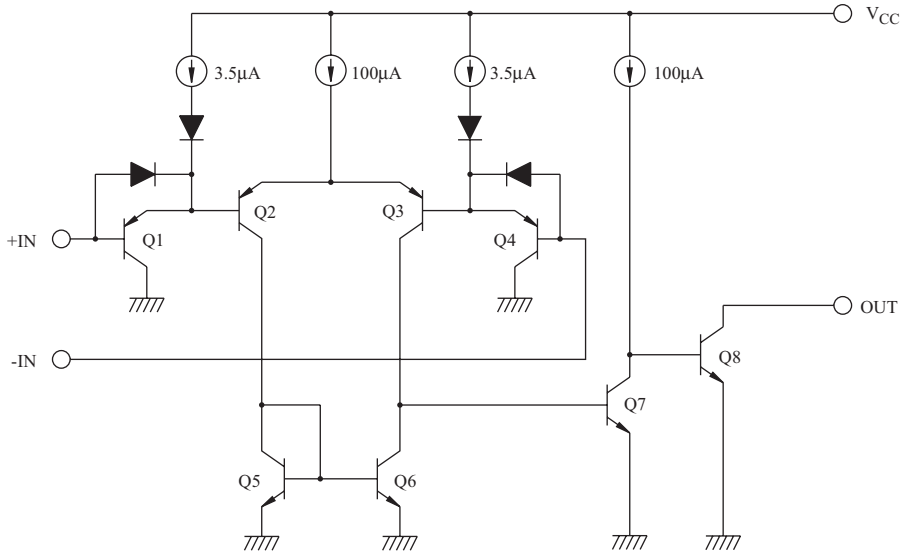




DIM	MILLIMETERS
A	4.85±0.2
B1	3.94±0.2
B2	6.02±0.3
D	0.4±0.1
G	0.15+0.1/-0.05
H	1.63±0.2
L	0.65±0.2
P	1.27
T	0.20+0.1/-0.05
U	0.1 MAX

FLP-8

EQUIVALENT CIRCUIT



MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Supply Voltage		V_{CC}	±18, 36	V
Differential Input Voltage		DV_{IN}	±18, 36	V
Common Mode Input Voltage		CMV_{IN}	-0.3 V_{CC}	V
Power Dissipation	KIA393P	P_D	500	mW
	KIA393F		240	
Junction Temperature		T_j	150	℃
Operating Temperature		T_{opr}	-40 125	℃
Storage Temperature		T_{stg}	-55 150	℃

ELECTRICAL CHARACTERISTICS (V_{CC}=5V, V_{EE}=GND, Ta=25℃)

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=15kΩ	-	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=5.1kΩ, C_L=15pF	-	1.3	-	μs

Fig. 1 V_{CC} - I_{CC}

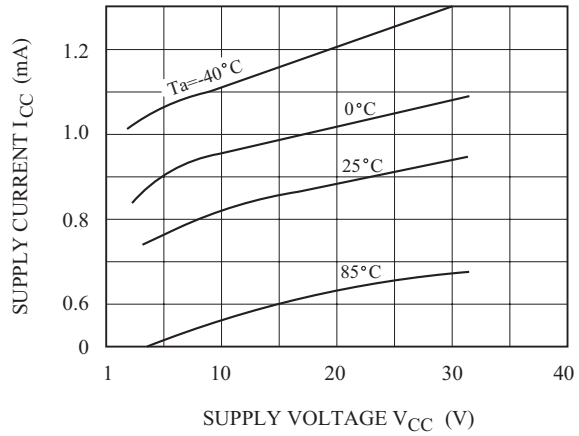


Fig. 2 V_{CC} - I_I

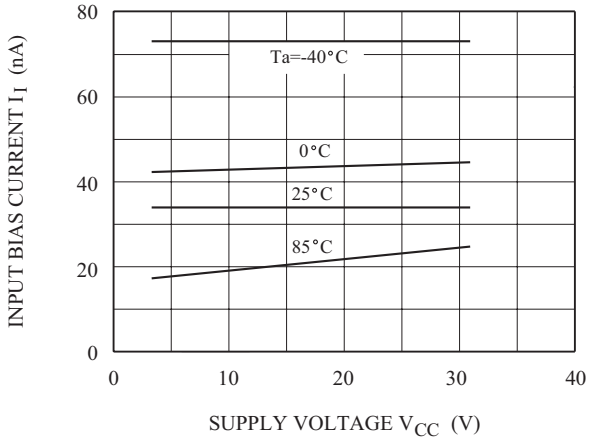


Fig. 3 V_{OL} - I_{SINK}

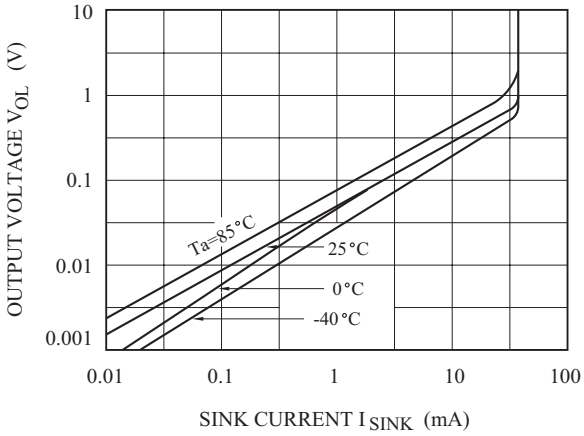


Fig. 4 V_{IN} , V_{OUT} - t_{rsp}

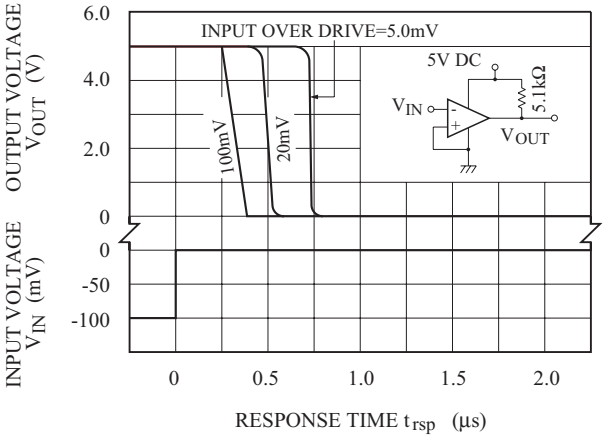


Fig. 5 V_{IN} , V_{OUT} - t_{rsp}

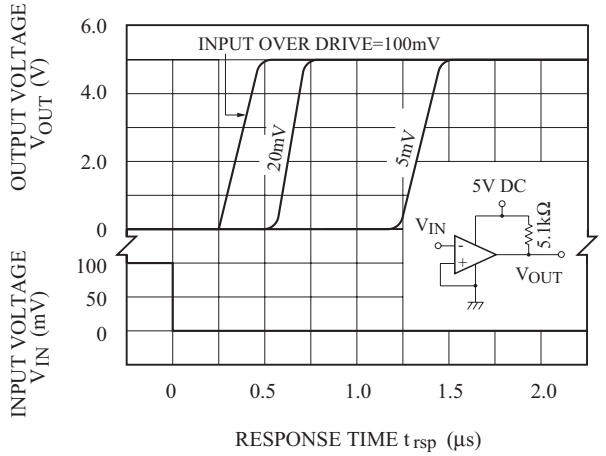


Fig. 6 P_D - Ta