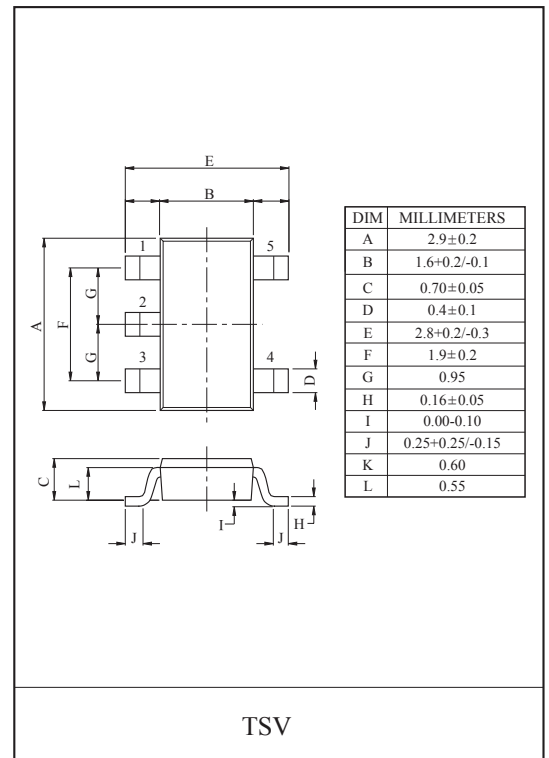
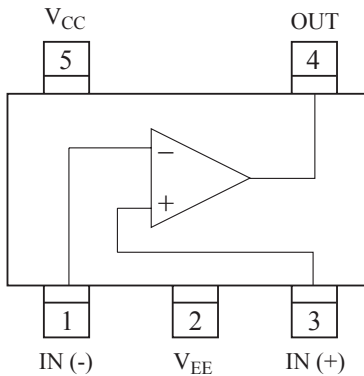


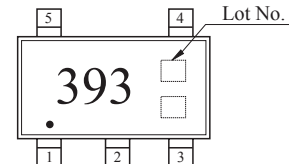
## SINGLE COMPARATOR

- Be Possible to Operate at the Wide Range Single or Two Supply Voltage. : 2~36V, 1~±18V
- Low Supply Current. :  $I_{CC}=0.4\text{mA(Typ.)}$ .
- Low Input Offset Voltage :  $V_{IO}=2\text{mV(Typ.)}$ .
- 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.
- Suffix U : Qualified to AEC-Q100 (Grade 1)  
ex) KIA75S393F-RTK/PU

## PIN CONNECTION (TOP VIEW)



## Marking (TOP VIEW)

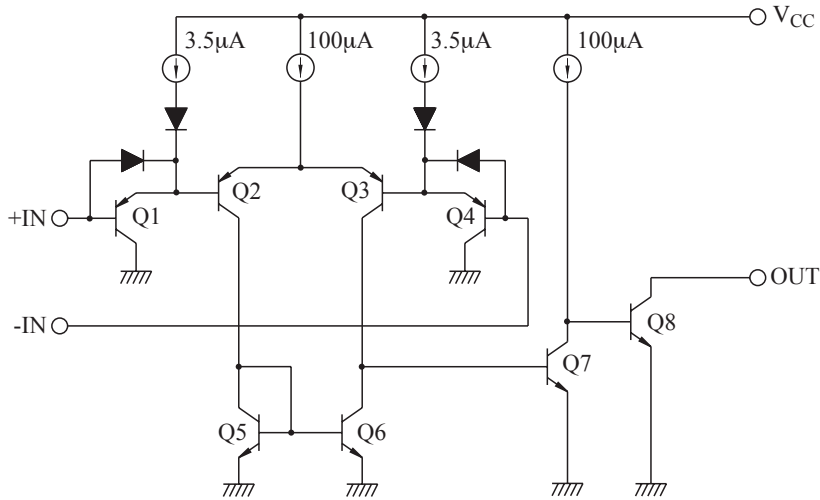


## MAXIMUM RATINGS (Ta=25°C)

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	$P_D$	200	mW
Operating Temperature	$T_{opr}$	-40 ~ 125	°C
Storage Temperature	$T_{stg}$	-55 ~ 150	°C

# KIA75S393F

## EQUIVALENT CIRCUIT

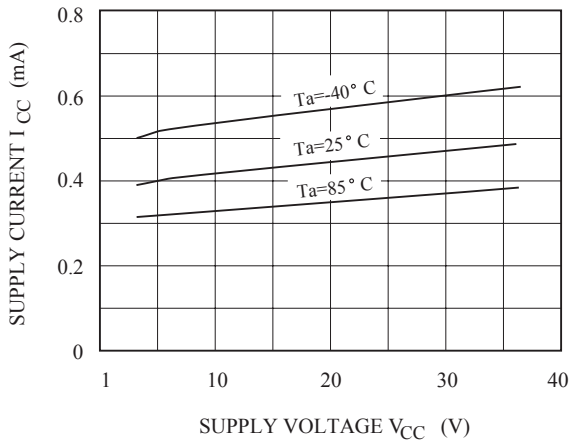


## ELECTRICAL CHARACTERISTICS ( $V_{CC}=5V$ , $V_{EE}=GND$ , $T_a=25^\circ C$ )

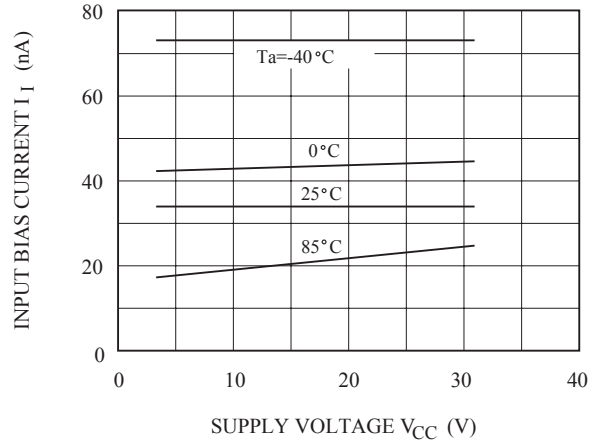
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	$V_{IO}$	$V_O=1.4V$	-	2	5	mV
Input Offset Current	$I_{IO}$	-	-	5	50	nA
Input Bias Current	$I_I$	-	-	25	250	nA
Common Mode Input Voltage	$CMV_{IN}$	-	0	-	$V_{CC}-1.5$	V
Voltage Gain	$G_V$	$R_L=15k\Omega$	-	200	-	V/mV
Supply Current	$I_{CC}$	No load	-	0.4	0.8	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	$t_{rsp}$	$R_L=5.1k\Omega$ , $C_L=15pF$	-	1.3	-	$\mu s$

# KIA75S393F

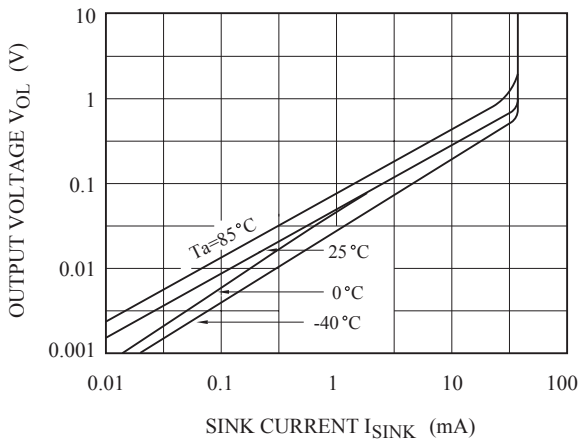
$V_{CC} - I_{CC}$



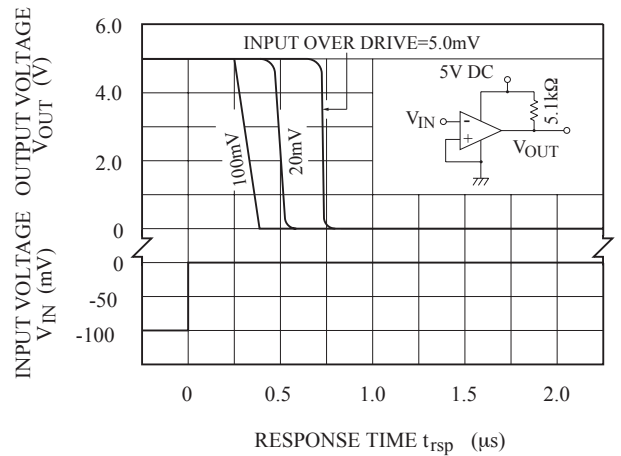
$V_{CC} - I_I$



$V_{OL} - I_{SINK}$



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



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

