

10K SERIES DC ELECTRICAL CHARACTERISTICS⁽¹⁾

$V_{EE} = V_{EE} (\text{Min.})$ to $V_{EE} (\text{Max.})$; $V_{CC} = \text{GND}^{(4)}$

Symbol	Parameter	TA = -40°C		TA = 0°C		TA = +25°C		TA = +85°C		Unit
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
VOH	Output HIGH Voltage	-1080	-890	-1020	-840	-980	-810	-910	-720	mV
VOL	Output LOW Voltage	-1950	-1650	-1950	-1630	-1950	-1630	-1950	-1595	mV
VIH	Input HIGH Voltage	-1230	-890	-1170	-840	-1130	-810	-1060	-720	mV
VIL	Input LOW Voltage	-1950	-1500	-1950	-1480	-1950	-1480	-1950	-1445	mV
IIL	Input LOW Current	0.5	—	0.5	—	0.5	—	0.3	—	μA

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$V_{EE} = V_{EE} (\text{Min.})$ to $V_{EE} (\text{Max.})$; $V_{CC} = \text{GND}^{(4)}$

Symbol	Parameter	TA = -40°C			TA = 0°C to +85°C			Unit	Conditions	
		Min.	Typ.	Max.	Min.	Typ.	Max.			
VOH	Output HIGH Voltage	-1085	-1005	-880	-1025	-955	-880	mV	VIN = VIH(Max) or VIL(Min)	Loading with 50Ω to -2.0V
VOL	Output LOW Voltage	-1830	-1695	-1555	-1810	-1705	-1620			
VOHA	Output HIGH Voltage	-1095	—	—	-1035	—	—	mV	VIN = VIH(Min) or VIL(Max)	
VOLA	Output LOW Voltage	—	—	-1555	—	—	-1610			
VIH	Input HIGH Voltage ⁽⁵⁾	-1165	—	-880	-1165	—	-880	mV		
VIL	Input LOW Voltage ⁽⁶⁾	-1810	—	-1475	-1810	—	-1475	mV		
IIL	Input LOW Current	0.5	—	—	0.5	—	—	μA	VIN = VIL(Min)	

ABSOLUTE MAXIMUM RATINGS⁽³⁾

Symbol	Parameter	Rating	Unit
V _{EE}	Power Supply (V _{CC} = 0V)	-8.0 to 0	V
V _I	Input Voltage (V _{CC} = 0V)	0 to -6.0	V
I _{OUT}	Output Current:	50 100	mA
	Continuous Surge		
T _A	Operating Temperature Range	-40 to +85	°C
V _{EE} ⁽⁴⁾	Operating Range	-5.7 to -4.2	V
T _{store}	Storage Temperature Range	-65 to +150	°C

NOTES:

- 10EL circuits are designed to meet the DC specifications shown in the table after thermal equilibrium has been established. The circuit is in a test socket or mounted on a printed circuit board and transverse airflow greater than 500lfpm is maintained. Outputs are terminated through a 50Ω resistor to -2.0V except where otherwise specified on the individual data sheets.
- This table replaces the three tables traditionally seen in ECL 100K data books. The same DC parameter values at V_{EE} = -4.5V now apply across the full V_{EE} range of -4.2V to -5.5V. Outputs are terminated through a 50Ω resistor to -2.0V except where otherwise specified on the individual data sheets. 100K circuits are designed to meet the DC specifications shown in the table where transverse airflow greater than 500lfpm is maintained.
- Absolute maximum rating, beyond which device life may be impaired unless otherwise specified on an individual data sheet.
- Parametric values specified at:

5 volt Power Supply Range	100EL Series:	-4.2V to -5.5V.
	10EL Series	-4.75V to -5.5V.
3 volt Power Supply Range	10/100EL Series:	-3.0V to -3.8V.
- Guaranteed HIGH Signal for all Inputs.
- Guaranteed LOW Signal for all Inputs.