3.3V CMOS Bus Interface 8-bit Latches

QS74FCT3573

FEATURES/BENEFITS

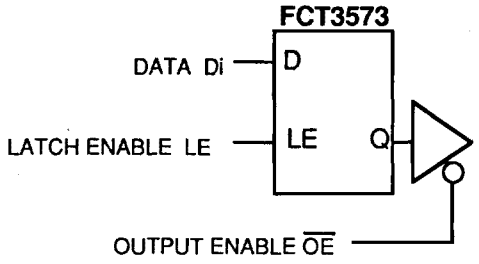
- Pin and Function compatible to the 74F573 74FCT573 and 74FCT573T
- CMOS power levels: <7.5 mW static
- Available in DIP, ZIP, SOIC, QSOP, LCC
- Undershoot clamp diodes on all inputs
- Military product compliant to MIL-STD-883
- JEDEC spec compatible
- Standard through C speed grades
- Iol = 24 mA Com.
- TTL-compatible input and output levels
- Ground bounce controlled outputs

DESCRIPTION

The QSFCT3573 device is an 8-bit high-speed CMOS TTL-compatible buffered latche with three-state outputs that are ideal for driving high capacitance loads such as memory and address buses. and all inputs have clamp diodes for undershoot noise suppression. All outputs have ground bounce suppression.

5

FUNCTIONAL BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Supply Voltage to Ground..... -0.5V to +4.6V
DC Output Voltage V_O ..... -0.5V to VCC+0.5V
DC Input Voltage V_I ..... -0.5V to VCC+0.5V
AC Input Voltage (for a pulse width ≤20 ns)..... -3.0V
DC Input Diode Current with V_I<0..... -20 mA
DC Output Diode Current with V_O <0..... -60 mA
DC Output Current Max. sink current/pin..... 60 mA
Maximum Power Dissipation..... 0.5 watts
T_{STG}Storage Temperature..... -65° to +165°C

DC ELECTRICAL CHARACTERISTICS OVER OPERATING RANGE

Commercial T_A=0°C to 70°C, V_{CC}=3.3V±0.3V

Symbol	Parameter	Test Conditions		Min	Typ (1)	Max	Unit
Vih	Input High Voltage	Logic HIGH for All Inputs		2.0	-	Vcc-0.5	Volts
Vil	Input LOW Voltage	Logic LOW for All Inputs		-0.5	-	0.8	
ΔVt	Input Hysterisis	Vtlh - Vthl for All Inputs		-	0.2	-	
| Iih | | Iil |	Input Current Input HIGH or LOW	Vcc = MAX	0 ≤ Vin < Vcc	-	-	5	µA
| Ioz |	Off State Output Current (Hi-Z)	Vcc = MAX, 0 ≤ Vin ≤ Vcc		-	-	5	
Ios	Short Circuit Current	Vcc = MAX, Vo = GND (2,3)		-60	-	-225	mA
Vic	Input Clamp Voltage	Vcc = MIN, Iin = 18 mA (3)		-	-0.7	-1.2	Volts
Voh	Output HIGH Voltage	Vcc = MIN	Ioh = 100µA	Vcc-0.2	-	-	Volts
			Ioh = 8mA	Vcc-0.6	-	-	
Vol	Output LOW Voltage	Vcc = MIN	Iol = 100µA	-	-	0.2	
			Iol = 16mA	-	-	0.4	
			Iol = 24mA	-	-	0.5	

Notes:
1. Typical values indicate V_{CC}=3.3V and T_A=25°C.
2. Not more than one output should be shorted and the duration is ≤1 second.
3. These parameters are guaranteed by design but not tested.