**ADVANCE INFORMATION** 

TOSHIBA CMOS DIGITAL INTEGRATED CIRCUIT SILICON MONOLITHIC

## TC74VCX16827FT

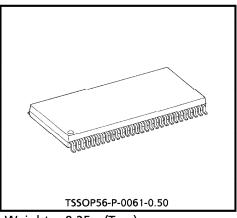
### LOW-VOLTAGE 20-BIT BUS BUFFER WITH 3.6V TOLERANT INPUTS AND OUTPUTS

The TC74VCX16827FT is a high performance CMOS 20-bit BUS BUFFER. Designed for use in 1.8, 2.5 or 3.3 Volt systems, it achieves high speed operation while maintaining the CMOS low power dissipation. It is also designed with over voltage tolerant inputs and outputs up to 3.6V.

The TC74VCX16827FT is composed of two 10-bit sections with separate output-enable signals. For either 10-bit buffer section, the two output-enable (1<del>OE1</del> and 1<del>OE2</del> or 20E1 and 20E2) inputs must both be low for the corresponding Y outputs to be active.

When the  $\overline{OE}$  input is high, the outputs are in a high impedance state. This device is designed to be used with 3 - state memory address drivers, etc.

All inputs are equipped with protection circuits against static discharge.



Weight: 0.25g (Typ.)

#### **FEATURES**

Low Voltage Operation: V<sub>CC</sub>=P.8~8.6 ELIMINARY
High Speed Operation

High Speed Operation :  $t_{pd} = TBD \text{ (max.)}$  at  $V_{CC} = 3.0 \sim 3.6 \text{V}$ 

:  $t_{pd} = TBD \text{ (max.)}$  at  $V_{CC} = 2.3 \sim 2.7 \text{V}$ : tpd = TBD (max.) at  $V_{CC} = 1.8V$ 

3.6V Tolerant inputs and outputs.

**Output Current** :  $I_{OH}/I_{OL} = \pm 24mA$  (min.) at  $V_{CC} = 3.0V$ 

 $: I_{OH}/I_{OL} = \pm 18mA \text{ (min.)} \text{ at } V_{CC} = 2.3V$ 

:  $I_{OH}/I_{OL} = \pm 6mA \text{ (min.)}$  at  $V_{CC} = 1.8V$ 

Latch-up Performance : ±300mA

**ESD** Performance : Human Body Model > ±2000V

: Machine Model > ±200V

Package

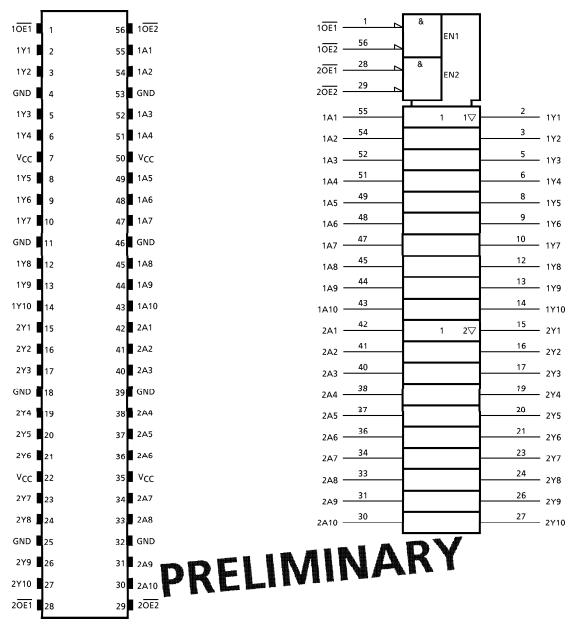
(Thin Shrink Small Outline Package)

Power Down Protection is provided on all inputs and outputs.

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#### **PIN ASSIGNMENT**

#### **SYMBOL**



(TOP VIEW)

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#### FUNCTION TABLE (each 10-bit latch)

INPUT			OUTPUT
OE1	OE2	Α	Y
L	L	L	L
L	L	Н	Н
Н	Х	Х	Z
Х	Н	Х	Z

# **PRELIMINARY**

#### SYSTEM DIAGRAM

