

## 74LVT374 3.3V ABT Octal D Flip-Flop with TRI-STATE® Outputs

### General Description

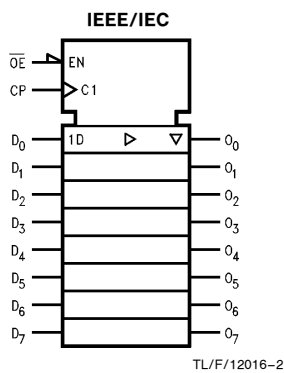
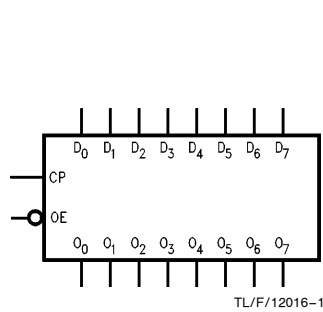
The LVT374 is a high-speed, low-power octal D-type flip-flop featuring separate D-type inputs for each flip-flop and TRI-STATE outputs for bus-oriented applications. A buffered Clock (CP) and Output Enable (OE) are common to all flip-flops.

These octal flip-flops are designed for low-voltage (3.3V)  $V_{CC}$  applications, but with the capability to provide a TTL interface to a 5V environment. The LVT374 is fabricated with an advanced BiCMOS technology to achieve high speed operation similar to 5V ABT while maintaining a low power dissipation.

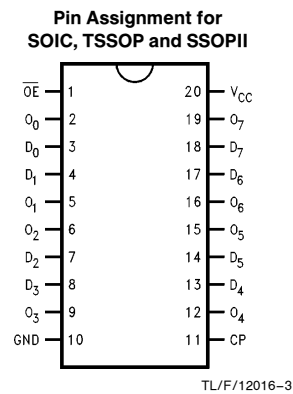
### Features

- Input and output interface capability to systems at 5V  $V_{CC}$
- Bus-Hold data inputs eliminate the need for external pull-up resistors to hold unused inputs
- Live insertion/extraction permitted
- Power Up/Down high impedance provides glitch-free bus loading
- Outputs source/sink  $-32\text{ mA}/+64\text{ mA}$
- Available in SOIC JEDEC, SOIC EIAJ, TSSOP and SSOPII
- Functionally compatible with the 74 series 374
- Latch-up performance exceeds 500 mA

### Logic Symbols



### Connection Diagram



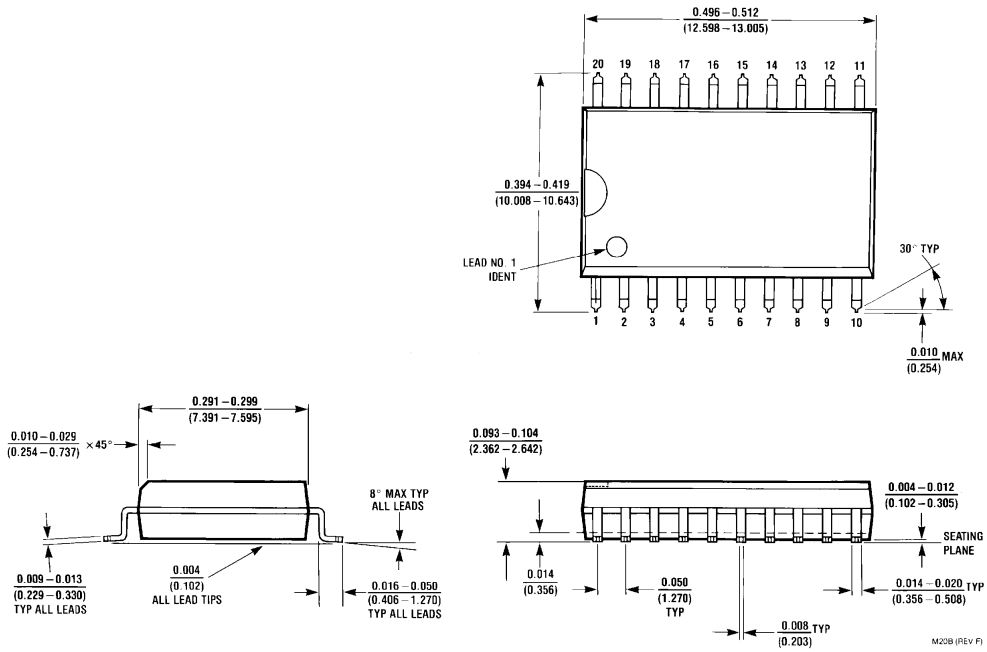
Pin Names	Description
$D_0$ - $D_7$	Data Inputs
CP	Clock Pulse Input
$\overline{OE}$	TRI-STATE Output Enable Input
$O_0$ - $O_7$	TRI-STATE Outputs

	SOIC JEDEC	SOIC EIAJ	TSSOP JEDEC	SSOPII
Order Number	74LVT374WM 74LVT374WMX	74LVT374SJ 74LVT374SJX	74LVT374MTC 74LVT374MTCX	74LVT374MSA 74LVT374MSAX
See NS Package Number	M20B	M20D	MTC20	MSA20

TRI-STATE® is a registered trademark of National Semiconductor Corporation.

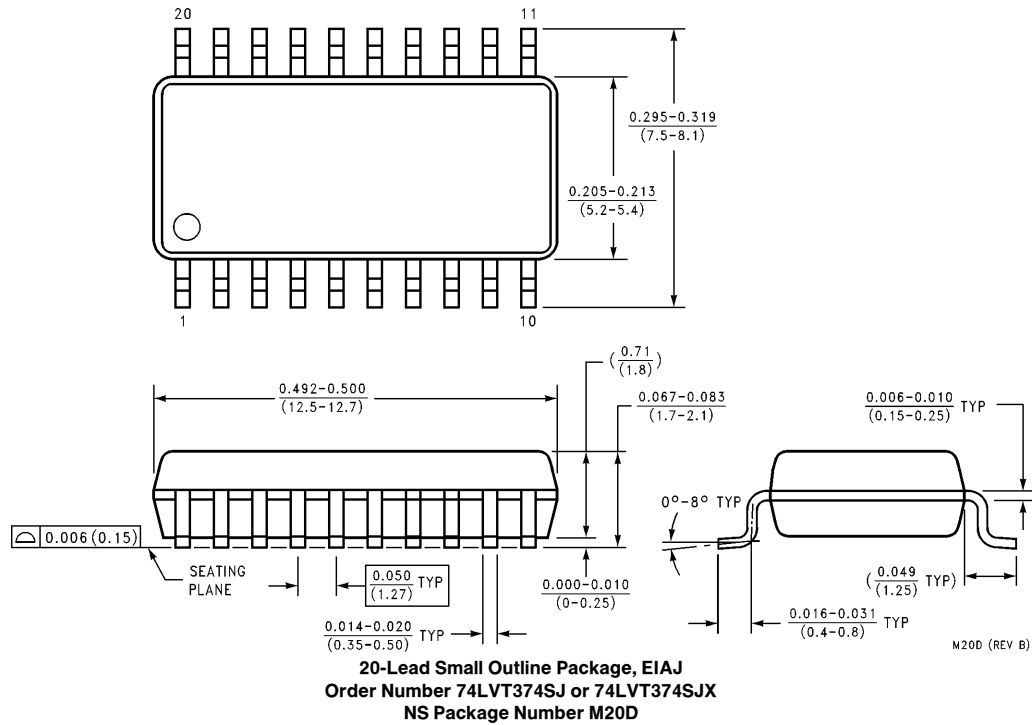


**Physical Dimensions** inches (millimeters) unless otherwise noted

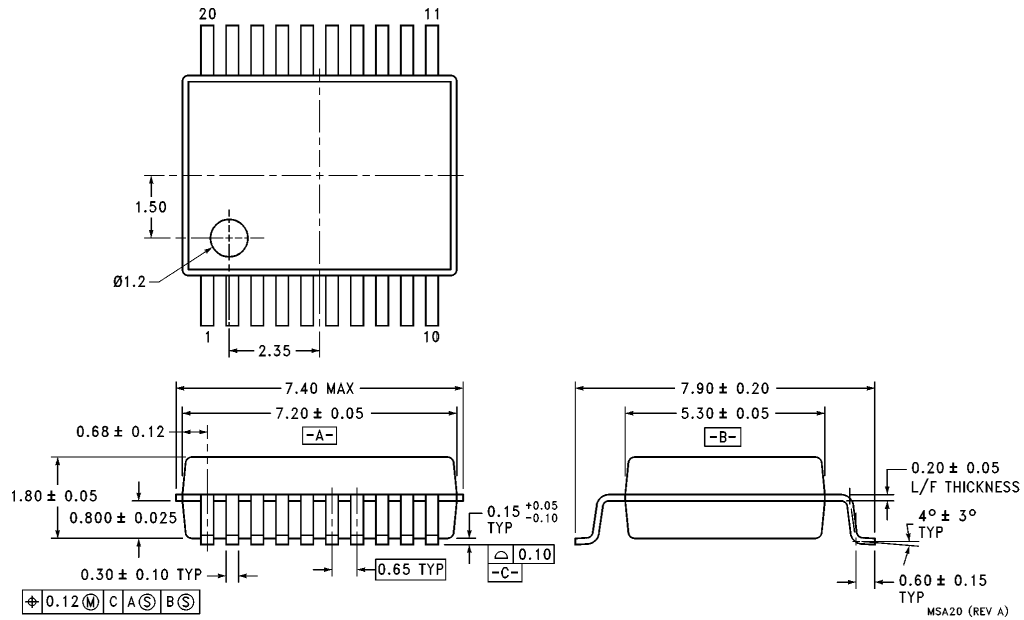


**20-Lead Small Outline Integrated Circuit**  
**Order Number 74LVT374WM or 74LVT374WMX**  
**NS Package Number M20B**

**Physical Dimensions** inches (millimeters) unless otherwise noted (Continued)

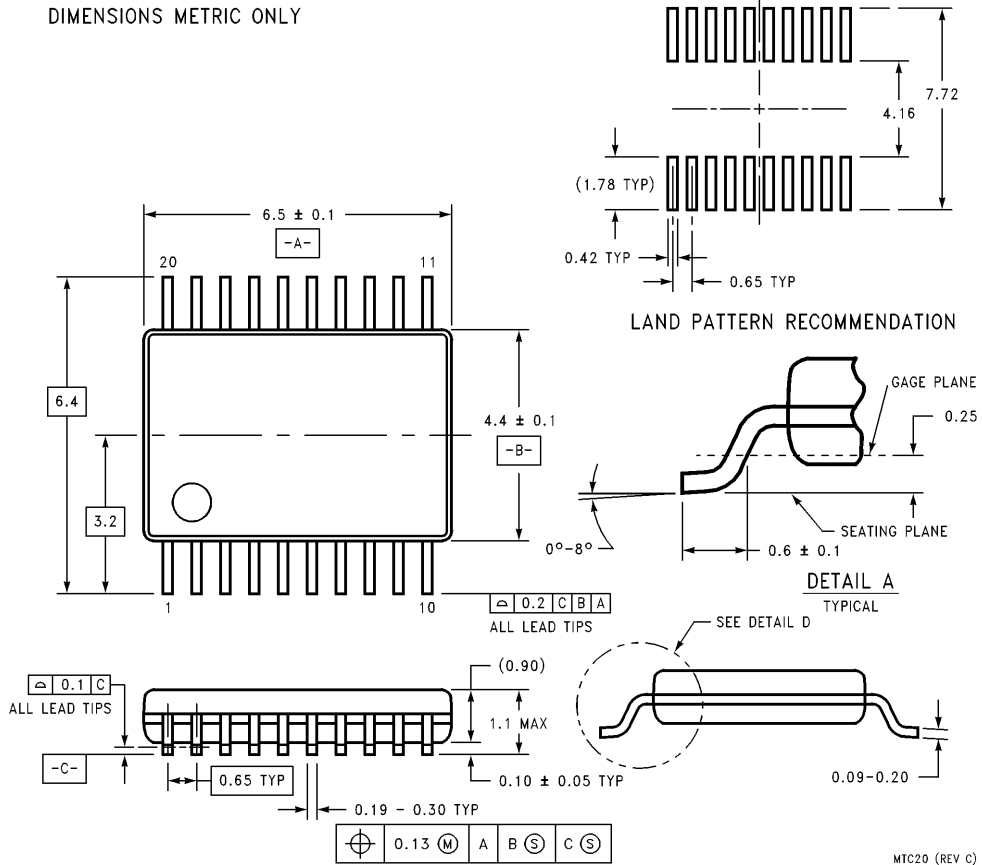


**Physical Dimensions** millimeters (Continued)



**20-Lead Molded Shrink Small Outline Package, EIAJ Type II**  
**Order Number 74LVT374MSA or 74LVT374MSAX**  
**NS Package Number MSA20**

**Physical Dimensions** millimeters (Continued)



**20-Lead Small Outline Package TSSOP JEDEC**  
**Order Number 74LVT374MTC or 74LVT374MTCX**  
**NS Package Number MTC20**

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