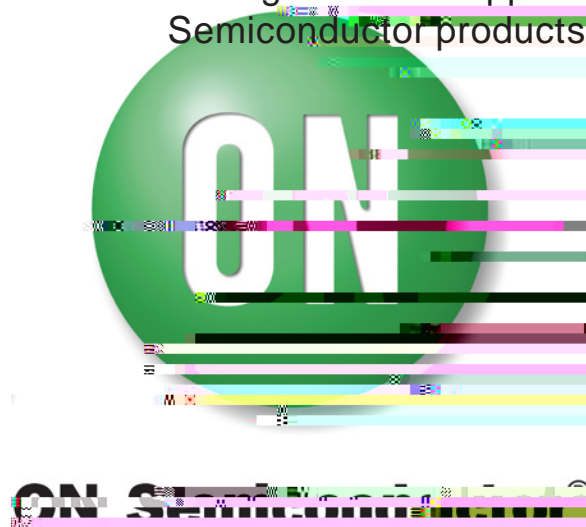


Is Now Part of

to make changes without further notice to any products arising out of the application or use of any product or ON Semiconductor products, including compliance with all I



To learn more about ON Semiconductor, please visit our website at www.onsemi.com

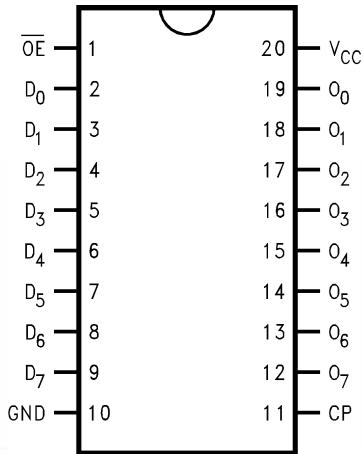
Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.



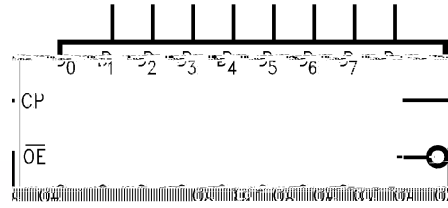
EMI D T R



Connection Diagram



Logic Symbols



Pin Description

Pin Names	Description
0-7	D _n
C	CP
—	3- A
0-7	3- A

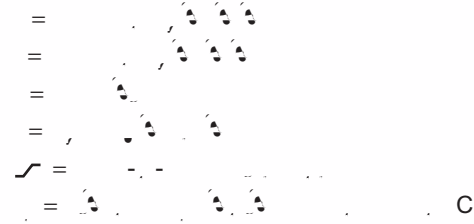


Functional Description

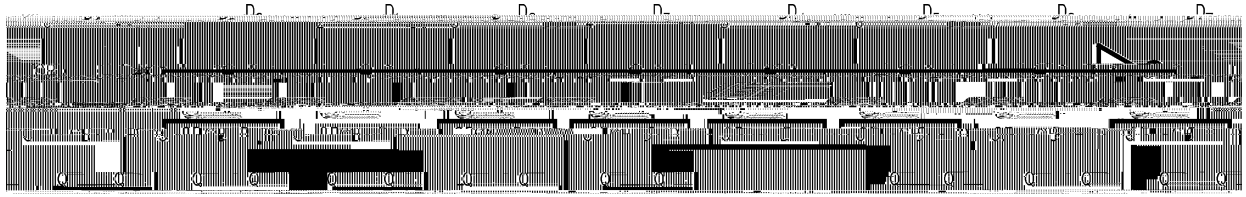


Truth Table

Inputs			Outputs
D _n	CP	OE	O _n
	↗		
	↘		



Logic Diagram



Absolute Maximum Ratings

Symbol	Parameter	Rating
V_{CC}	Voltage on V_{CC}	0.5 to +4.6
V_{C1}	Voltage on $C1$	0.5 to +7.0
V_{C2}	Voltage on $C2$	0.5 to +7.0
V_{C3}	Voltage on $C3$	0.5 to +7.0
V_{C4}	Voltage on $C4$	0.5 to +7.0
V_{C5}	Voltage on $C5$	0.5 to +7.0
V_{C6}	Voltage on $C6$	0.5 to +7.0
V_{C7}	Voltage on $C7$	0.5 to +7.0
V_{C8}	Voltage on $C8$	0.5 to +7.0
V_{C9}	Voltage on $C9$	0.5 to +7.0
V_{C10}	Voltage on $C10$	0.5 to +7.0
V_{C11}	Voltage on $C11$	0.5 to +7.0
V_{C12}	Voltage on $C12$	0.5 to +7.0
V_{C13}	Voltage on $C13$	0.5 to +7.0
V_{C14}	Voltage on $C14$	0.5 to +7.0
V_{C15}	Voltage on $C15$	0.5 to +7.0
V_{C16}	Voltage on $C16$	0.5 to +7.0
V_{C17}	Voltage on $C17$	0.5 to +7.0
V_{C18}	Voltage on $C18$	0.5 to +7.0
V_{C19}	Voltage on $C19$	0.5 to +7.0
V_{C20}	Voltage on $C20$	0.5 to +7.0
V_{C21}	Voltage on $C21$	0.5 to +7.0
V_{C22}	Voltage on $C22$	0.5 to +7.0
V_{C23}	Voltage on $C23$	0.5 to +7.0
V_{C24}	Voltage on $C24$	0.5 to +7.0
V_{C25}	Voltage on $C25$	0.5 to +7.0
V_{C26}	Voltage on $C26$	0.5 to +7.0
V_{C27}	Voltage on $C27$	0.5 to +7.0
V_{C28}	Voltage on $C28$	0.5 to +7.0
V_{C29}	Voltage on $C29$	0.5 to +7.0
V_{C30}	Voltage on $C30$	0.5 to +7.0
V_{C31}	Voltage on $C31$	0.5 to +7.0
V_{C32}	Voltage on $C32$	0.5 to +7.0
V_{C33}	Voltage on $C33$	0.5 to +7.0
V_{C34}	Voltage on $C34$	0.5 to +7.0
V_{C35}	Voltage on $C35$	0.5 to +7.0
V_{C36}	Voltage on $C36$	0.5 to +7.0
V_{C37}	Voltage on $C37$	0.5 to +7.0
V_{C38}	Voltage on $C38$	0.5 to +7.0
V_{C39}	Voltage on $C39$	0.5 to +7.0
V_{C40}	Voltage on $C40$	0.5 to +7.0
V_{C41}	Voltage on $C41$	0.5 to +7.0
V_{C42}	Voltage on $C42$	0.5 to +7.0
V_{C43}	Voltage on $C43$	0.5 to +7.0
V_{C44}	Voltage on $C44$	0.5 to +7.0
V_{C45}	Voltage on $C45$	0.5 to +7.0
V_{C46}	Voltage on $C46$	0.5 to +7.0
V_{C47}	Voltage on $C47$	0.5 to +7.0
V_{C48}	Voltage on $C48$	0.5 to +7.0
V_{C49}	Voltage on $C49$	0.5 to +7.0
V_{C50}	Voltage on $C50$	0.5 to +7.0
V_{C51}	Voltage on $C51$	0.5 to +7.0
V_{C52}	Voltage on $C52$	0.5 to +7.0
V_{C53}	Voltage on $C53$	0.5 to +7.0
V_{C54}	Voltage on $C54$	0.5 to +7.0
V_{C55}	Voltage on $C55$	0.5 to +7.0
V_{C56}	Voltage on $C56$	0.5 to +7.0
V_{C57}	Voltage on $C57$	0.5 to +7.0
V_{C58}	Voltage on $C58$	0.5 to +7.0
V_{C59}	Voltage on $C59$	0.5 to +7.0
V_{C60}	Voltage on $C60$	0.5 to +7.0
V_{C61}	Voltage on $C61$	0.5 to +7.0
V_{C62}	Voltage on $C62$	0.5 to +7.0
V_{C63}	Voltage on $C63$	0.5 to +7.0
V_{C64}	Voltage on $C64$	0.5 to +7.0
V_{C65}	Voltage on $C65$	0.5 to +7.0
V_{C66}	Voltage on $C66$	0.5 to +7.0
V_{C67}	Voltage on $C67$	0.5 to +7.0
V_{C68}	Voltage on $C68$	0.5 to +7.0
V_{C69}	Voltage on $C69$	0.5 to +7.0
V_{C70}	Voltage on $C70$	0.5 to +7.0
V_{C71}	Voltage on $C71$	0.5 to +7.0
V_{C72}	Voltage on $C72$	0.5 to +7.0
V_{C73}	Voltage on $C73$	0.5 to +7.0
V_{C74}	Voltage on $C74$	0.5 to +7.0
V_{C75}	Voltage on $C75$	0.5 to +7.0
V_{C76}	Voltage on $C76$	0.5 to +7.0
V_{C77}	Voltage on $C77$	0.5 to +7.0
V_{C78}	Voltage on $C78$	0.5 to +7.0
V_{C79}	Voltage on $C79$	0.5 to +7.0
V_{C80}	Voltage on $C80$	0.5 to +7.0
V_{C81}	Voltage on $C81$	0.5 to +7.0
V_{C82}	Voltage on $C82$	0.5 to +7.0
V_{C83}	Voltage on $C83$	0.5 to +7.0
V_{C84}	Voltage on $C84$	0.5 to +7.0
V_{C85}	Voltage on $C85$	0.5 to +7.0
V_{C86}	Voltage on $C86$	0.5 to +7.0
V_{C87}	Voltage on $C87$	0.5 to +7.0
V_{C88}	Voltage on $C88$	0.5 to +7.0
V_{C89}	Voltage on $C89$	0.5 to +7.0
V_{C90}	Voltage on $C90$	0.5 to +7.0
V_{C91}	Voltage on $C91$	0.5 to +7.0
V_{C92}	Voltage on $C92$	0.5 to +7.0
V_{C93}	Voltage on $C93$	0.5 to +7.0
V_{C94}	Voltage on $C94$	0.5 to +7.0
V_{C95}	Voltage on $C95$	0.5 to +7.0
V_{C96}	Voltage on $C96$	0.5 to +7.0
V_{C97}	Voltage on $C97$	0.5 to +7.0
V_{C98}	Voltage on $C98$	0.5 to +7.0
V_{C99}	Voltage on $C99$	0.5 to +7.0
V_{C100}	Voltage on $C100$	0.5 to +7.0

Note:

1. A

Recommended Operating Conditions

Symbol	Parameter	Min	Max	Units
V_{CC}	Voltage on V_{CC}	2.7	3.6	
V_{C1}	Voltage on $C1$	0	5.5	
V_{C2}	Voltage on $C2$		32	A
V_{C3}	Voltage on $C3$		64	A
V_{C4}	Voltage on $C4$	40	85	C
ΔI_A	$I_A = 0.8, 2.0, CC = 3.0$	0	10	/

DC Electrical Characteristics

Symbol	Parameter	V _{CC} (V)	Conditions	T _A = -40°C to +85°C			Units
				Min.	Typ. ⁽²⁾	Max.	
	C	2.7	= 18 A			1.2	
		2.7 3.6	≤ 0.1	2.0			
		2.7 3.6	≥ CC 0.1			0.8	
		2.7 3.6	= 100 A	CC 0.2			
		2.7	= 8 A	2.4			
		3.0	= 32 A	2.0			
		2.7	= 100 A			0.2	
			= 24 A			0.5	
		3.0	= 16 A			0.4	
			= 32 A			0.5	
			= 64 A			0.55	
() ⁽³⁾	B	3.0	= 0.8	75			1 A
			= 2.0	75			
() ⁽³⁾	B C	3.0	⁽⁴⁾	500			1 A
				500			
	C	3.6	≤ 5.5			10	1 A
	C	3.0	= CC			1	
			= 0			5	
			= CC			1	
		0	≤ 5.5			100	1 A
/	3- A	0 1.5	= 0.5 3.0			100	1 A
	C		= CC				
	A	3.6	= 0.5			5	1 A
	3- A	3.6	= 3.0			5	1 A
+	3- A	3.6	CC < ≤ 5.5			10	1 A
CC	C	3.6				0.19	A
CC	y C	3.6				5	A
CC	y C	3.6				0.19	A
CC +	y C	3.6	CC ≤ ≤ 5.5			0.19	A
Δ CC	C ⁽⁶⁾	3.6	CC 0.6			0.2	A

Notes:

2. A y, CC = 3.3, A = 25, C.

3. A y (74 574).

4. A

5. A

6. y CC

Dynamic Switching Characteristics⁽⁷⁾

Notes:

7. C₁ = 15 pF, C₂ = 50 pF, R₁ = 0.61 k Ω , R₂ = 61 k Ω , V_{DD} = 1.3556 V, V_{IL} = -1.3556 V, V_{OL} = (78)-366.2 (C₁, C₂)



Physical Dimensions

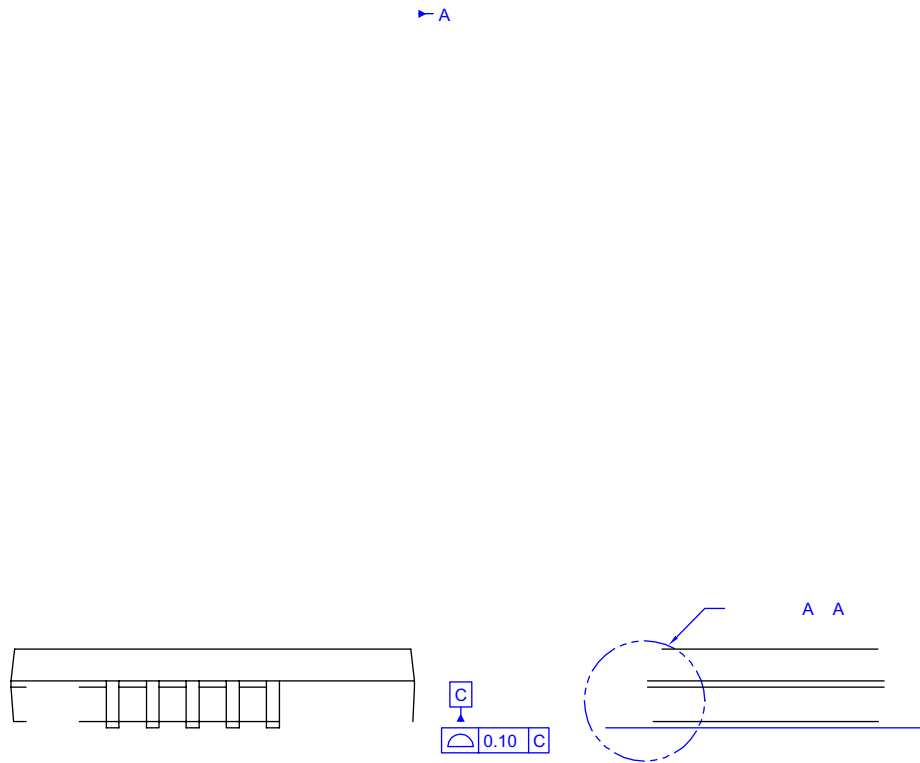


Figure 1. 20-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-013, 0.300" Wide

Package drawings are provided as a service to customers considering Fairchild components. Drawings may change in any manner without notice. Please note the revision and/or date on the drawing and contact a Fairchild Semiconductor representative to verify or obtain the most recent revision. Package specifications do not expand the terms of Fairchild's worldwide terms and conditions, specifically the warranty therein, which covers Fairchild products.

Always visit Fairchild Semiconductor's online packaging area for the most recent package drawings:

<http://www.fairchildsemi.com/packaging/>

Physical Dimensions (Continued)



C. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTP

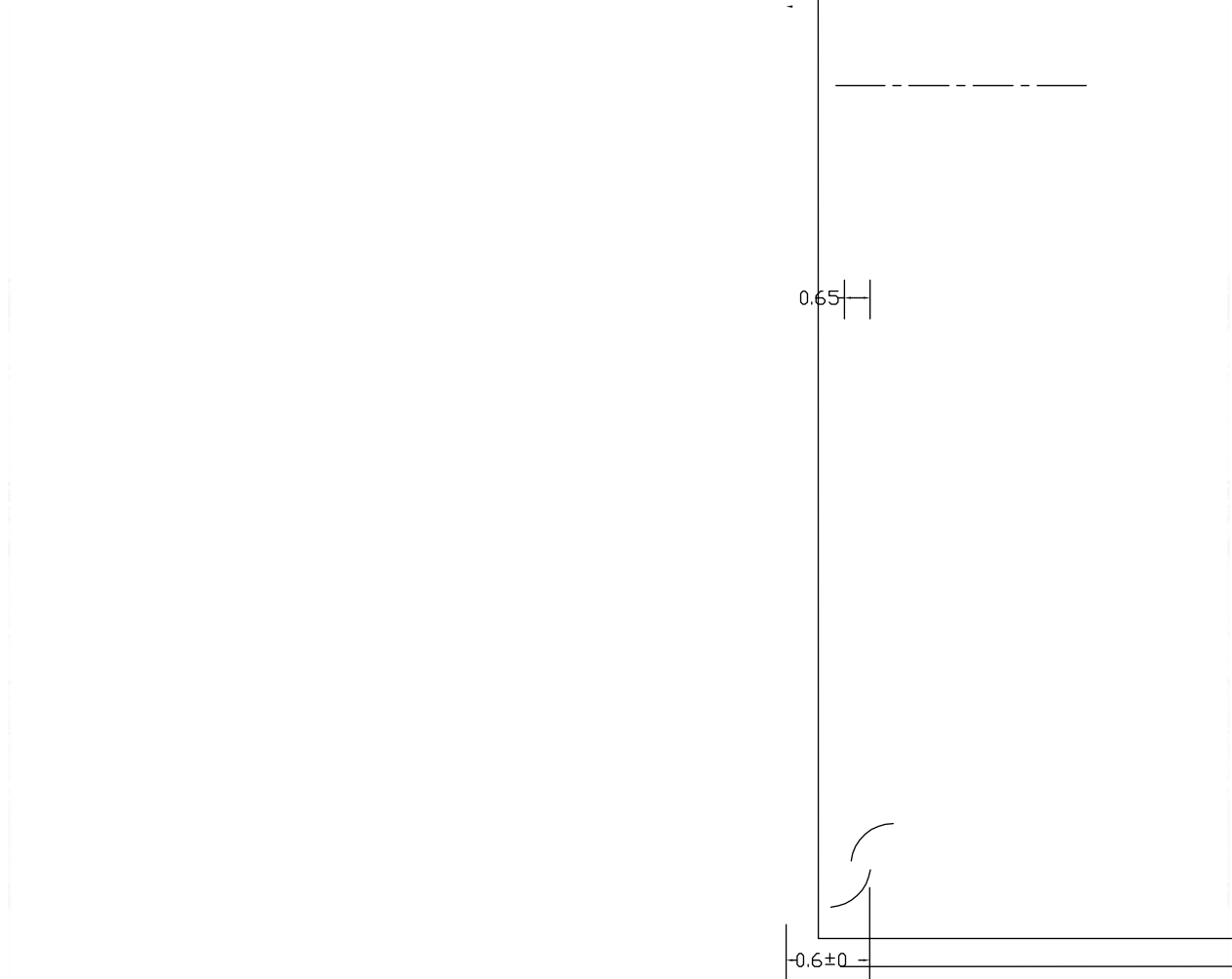
Figure 3. 20-Lead Shrink Small Outline Package (SSOP), JEDEC MO-150, 5.3mm Wide

Package drawings are provided as a service to customers considering Fairchild components. Drawings may change in any manner without notice. Please note the revision and/or date on the drawing and contact a Fairchild Semiconductor representative to verify or obtain the most recent revision. Package specifications do not expand the terms of Fairchild's worldwide terms and conditions, specifically the warranty therein, which covers Fairchild products.

Always visit Fairchild Semiconductor's online packaging area for the most recent package drawings:

<http://www.fairchildsemi.com/packaging/>

Physical Dimensions (Continued)



MTC20REV D1

Figure 4. 20-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153, 4.4mm Wide

Package drawings are provided as a service to customers considering Fairchild components. Drawings may change in any manner without notice. Please note the revision and/or date on the drawing and contact a Fairchild Semiconductor representative to verify or obtain the most recent revision. Package specifications do not expand the terms of Fairchild's worldwide terms and conditions, specifically the warranty therein, which covers Fairchild products.

Always visit Fairchild Semiconductor's online packaging area for the most recent package drawings:

<http://www.fairchildsemi.com/packaging/>

TRADEMARKS



