



## **ELECTRICAL CHARACTERISTICS**

Only one input of the expander is being tested. To complete testing, sequence through remaining inputs.

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- 0 0	0 4 0 <b>5</b> 5	12 - 13 - tor 9 -

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				10-	T	7	L	4						)	-55°C	C 20	-2.0	1.0	1	-0.3	3 0.4	1.1	2.0	4.5	1.0	2.4	4.5	5.5	1	
				÷	T	7	-	-					MC3	MC3131	+25°C	C 20	-2.0	1.0	-10	-0.3	3 0.4	1.1	2.0	4.5	1.0	2.4	4.5	5.5	7.0	
				12	T	4	-	-						-	+125°C	C 20	-2.0	1.0	•	-0.3	3 0.4	0.8	1.8	4.5	1.0	2.4	4.5	5.5	,	
		. 2	-		ť	)								)	0°C	C 20	-2.0	1.0		-0.3	3 0.4	1.1	2.0	4.5	1.0	2.5	4.75	5.25		
		3	CONNECTOR										MC3	MC3031	+25°C	20	-2.0	1.0	-10	-0.3	3 0.4	1.1	2.0	4.5	1.0	2.5	4.75	5.25	7.0	
					54 .		-	1						-	+75°C	20	-2.0	1.0		-0.3	3 0.4	0.9	1.8	4.5	1.0	2.5	4.75	5.25		
		Pin	-	MC	MC3131 Test		Limits		_		MC3	MC3031 Test Limits	ist Limi	its					TEST C	URREN	IT/VOL	TAGE /	APPLIED	rest current/voltage applied to pins listed below.	TED BEI	:MO				
		linder	1	-55°C	-	+25°C	Ŧ	+125°C	_	0°C	+	+25°C	+	+75°C	-			-	+		+					T		T	T	
Characteristic	Symbol		<	Max	x Min	Max	Min	Max	Min	Max	x Min	n Max	x Min	n Max	Unit	10_1	Ч	s	-	×	24	<"	<ul><li>HI</li></ul>	VRH	××	< R	VccL	VccH	V Vmax	Gnd
Input		-		000				6		6	-	6		6							-			c				-		c
FULWARU CULTER	4,	-		-9-	-		_		4	-9-	-	-9-		-9-	IIIAUC	-	-			4	-			2		,				-
Reverse Current	IR	1	1	50	r.	20	1.	20	1	50	1	50	1	50	μAdc	•	•	•	,	1	1	1	•	-	'	1	1	14	,	2,7
Breakdown Voltage	BVin	-	5.5	1	5.5	•	5.5	•	5.5	•	5.5	1	5.5	•	Vdc	•	•	1	•		•	•	'		•	,		14	,	2,7
Clamp Voltage	<sup>Q</sup> <sup>D</sup>	-	•	•	1	-1.5	1			1	•	-1.5	-		Vdc		•		-		1	'	•	1			14			2
Expander Input Current	<sup>I</sup> EX	6	-2.7	-4.5	5 -2.7	1 -4.5	-2.7	-4.5	-2.9	-5.35	35 -2.9	9 -5.35	15 -2.9	9 -5.35	5 mAde	•	80	•	•	1 .	•	'			6	,	14			1,2,3,4,5,7,10,11,12,13
Output Output Voltage	VOL	∞	at the	0.4		0.4	1.1	0.4		0.4	- 1	0.4		0.4	Vdc	∞	1	1	1		1	1,3,	1	2,4,5, 11.13	1	,	14	1		7
		80		0.4	10	0.4	•	0.4	•	0.4	ı	0.4	!	0.4	Vdc	\$		1	•	6	. 1	'	л.,	1,2,3,4,5 10,11,12,13	,		14	,	- 1 -	2
	ЧОН	80	2.4	1	2.4		2.4	1	2.5		2.5	1	2.5	•	Vdc	1	80	1	1 -		'	'	1,2		1.	1	14	i	<u>е</u>	3,4,5,7,10,11 12,13
		80	2.4	1.25	2.4	1	2.4	- 1 <sup></sup>	2.5	1	2.5	1	2.5		Vdc	· .	80	1	1	•	1	,	1	1	6	ı	14	1		1,2,3,4,5, 7,10,11,12.13
Short-Circuit Current	Isc	80	-40	-	-100 -40	-100	-40	-100	-40	-100	0 -40	-100	-40	-100	mAdc		'		•				'	1,2,3,4,5 10,11,12,13	1			14		7,8
Power Requirements Max Power Supply	Imav	14	1.1	1	2.1	34		1	1 1 1 1			34	'	'	mAdc	•	'	1	'		'			-	1.	1	1	,	14	1,2,3,4,5,7,
Current	VIIII			-		-		-			-			-	-	-		_			-		I				1	1	1	10,11,12,13
Power Supply Drain	IpDH	14	r,	31	1.	31	,	31	•	31	•	31	•	31	mAdc		-			•		'						14	-	7
	IPDL	14	1	24	1	24	,	24	•	24	1	24	•	24	mAdc		•		1	1	'	•	'	1	-	•		14	- 1	1,2,3,4,5 7,10,11,12,13
Switching Parameters			1.000	1.7					-			-				Pulse	e Pulse Out	-												
					-		_			_	_		_	_			+	Г	_	_	_				-		;	-		

3.4.5.7. 10.11.12.13 3.4.5, 7,10

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Turn-On Delay Turn-Off Delay

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## MC3131, MC3031 (continued)

VR Vccl VccH Vmax

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Но

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@ Test Temperature

Am

TEST CURRENT/VOLTAGE VALUES

Volts V<sub>RH</sub>