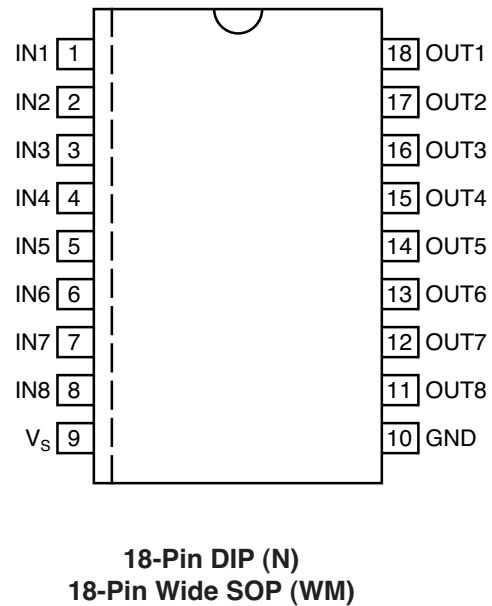


Pin Configuration



Pin Description

Pin No.	Pin No.	Pin Name	Pin Function
1–8	IN1–IN8	Input 1 through Input 8:	Base drive to driver input transistor.
9	V _S	Supply Input	
10	GND	Ground	
11–18	OUT8–OUT1	Output 8 through Output 1:	Emitter of Darlington driver output.

Absolute Maximum Ratings

Supply Voltage (V_S)	50V
Output Voltage (V_{CE})	50V
Continuous Output Current (I_C)	500mA
Input Voltage (V_{IN})	
MIC2981/82	30V
Ground Current (I_{GND})	3A
Junction Temperature (T_J)	+150°C
Storage Temperature (T_S)	-65°C to +150°C

Operating Ratings

Supply Voltage (V_S)	5V to 50V
Ambient Temperature (T_A)	-40°C to +85°C
Package Thermal Resistance	
PDIP θ_{JA}	56°C/W
SOP θ_{JA}	84°C/W

Electrical Characteristics(Note 3)

$V_S = 50V$, $T_A = +25^\circ C$, unless noted.

Symbol	Parameter	Condition	Min	Typ	Max	Units
I_{CEX}	Output Leakage Current	$V_{IN} = 0.4V$, $T_A = +70^\circ C$, Note 1			200	μA
$V_{CE(sus)}$	Output Sustaining Voltage	$I_{OUT} = 45mA$	35			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$V_{IN} = 2.4V$, $I_{OUT} = 100mA$		1.7	2.0	V
		$V_{IN} = 2.4V$, $I_{OUT} = 225mA$		1.8	2.1	V
		$V_{IN} = 2.4V$, $I_{OUT} = 350mA$		1.9	2.2	V
$I_{IN(on)}$	Input Current	MIC2981 $V_{IN} = 2.4V$ $V_{IN} = 3.85$		140 310	200 450	μA μA
		MIC2982 $V_{IN} = 2.4V$ $V_{IN} = 12V$		140 1.25	200 1.93	μA mA
I_{OUT}	Output Source Current	$V_{IN} = 2.4V$, $V_{CE} = 2.2V$	350			mA
I_S	Supply Current	$V_{IN} = 2.4$, OUT1-8 = open, Note 1			10	mA
t_{ON}	Turn-On Delay	$0.5E_{IN}$ to $0.5E_{OUT}$, $R_L = 100\Omega$, $V_S = 35V$,		1.0	2.0	μs
t_{OFF}	Turn-Off Delay	$0.5E_{IN}$ to $0.5E_{OUT}$, $R_L = 100\Omega$, $V_S = 35V$, Note 2		5.0	10	μs
I_R	Clamp Diode Leakage Current	$V_R = 50V$, $V_{IN} = 0.4V$, Note 1			50	μA
V_F	Clamp Diode Forward Voltage	$I_F = 350mA$		1.5	2.0	V

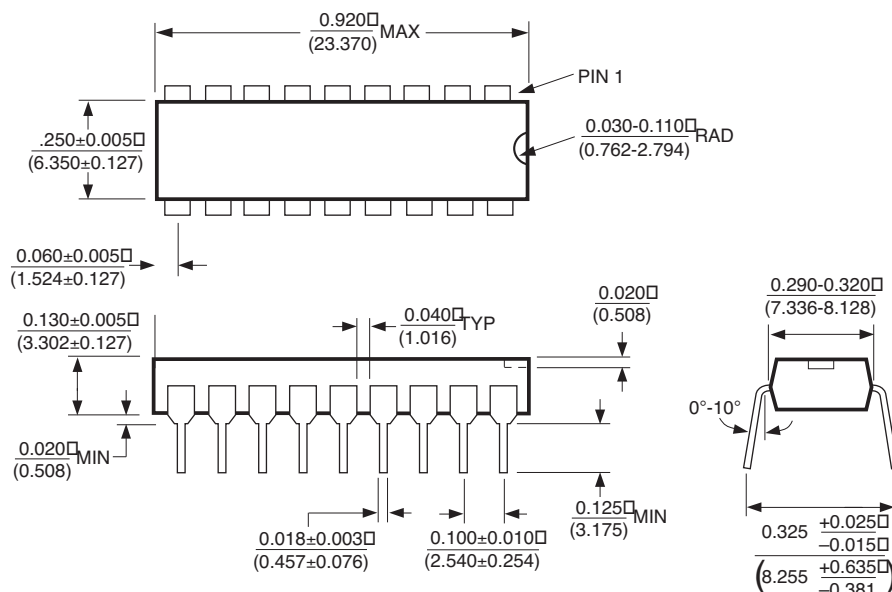
General Note: Devices are ESD protected; however, handling precautions are recommended.

Note 1: Applied to all 8 inputs simultaneously.

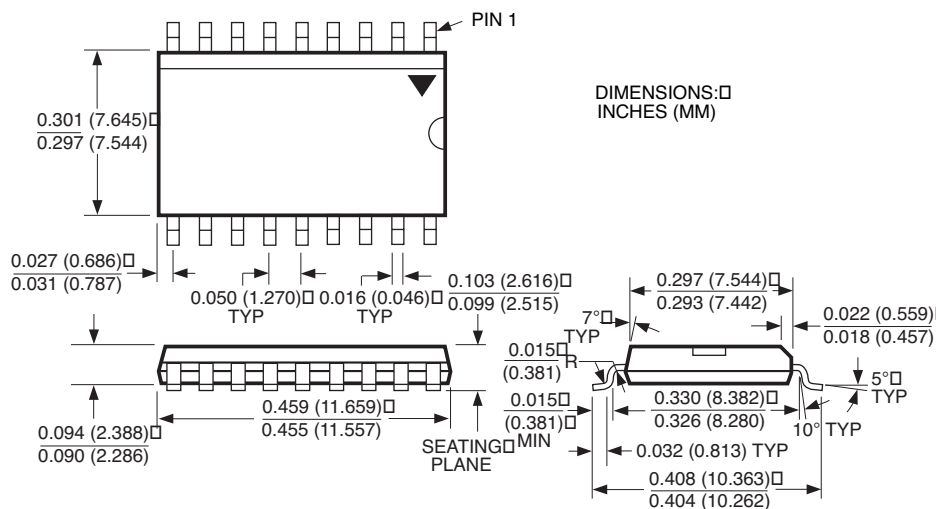
Note 2: Load conditions affect turnoff delay.

Note 3: Specification for packaged product only.

Package Information



18-Pin Plastic DIP (N)



18-Pin Wide SOP (WM)

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