Selection Guide

Part Number	Pb-free[1]	Package	Packing	Ambient Temperature (°C)
A2982ELW-T	Yes	18-pin SOICW	41 per tube	–40 to 85
A2982ELWTR-T	Yes	18-pin SOICW	1000 per reel	–40 to 85
A2982SLW-T	Yes	20-pin SOICW	37 per tube	–20 to 85
A2982SLWTR-T	Yes	18-pin SOICW	1000 per reel	–20 to 85
UDN2981A-T	Yes	18-pin DIP	21 per tube	–20 to 85
UDN2982A-T	Yes	18-pin DIP	21 per tube	–20 to 85
UDN2982LW-T	Yes	18-pin SOICW	1000 per reel	–20 to 85
UDN2982LWTR-T	Yes	18-pin SOICW	1000 per reel	–20 to 85
UDQ2982LW-T	Yes	18-pin SOICW	41 per tube	–40 to 85
UDQ2982LWTR-T	Yes	18-pin SOICW	1000 per reel	–40 to 85

[1]Pb-based variants are being phased out of the product line. The variants cited in this footnote are in production but have been determined to be NOT FOR NEW DESIGN. This classification indicates that sale of this device is currently restricted to existing customer applications. The variants should not be purchased for new design applications because obsolescence in the near future is probable. Samples are no longer available. Status change: May 1, 2006. These variants include: A2982ELW, A2982ELWTR, A2982SLW, A2982SLWTR, UDN2981A, UDN2982A, UDN2982LW, and UDN2982LWTR.

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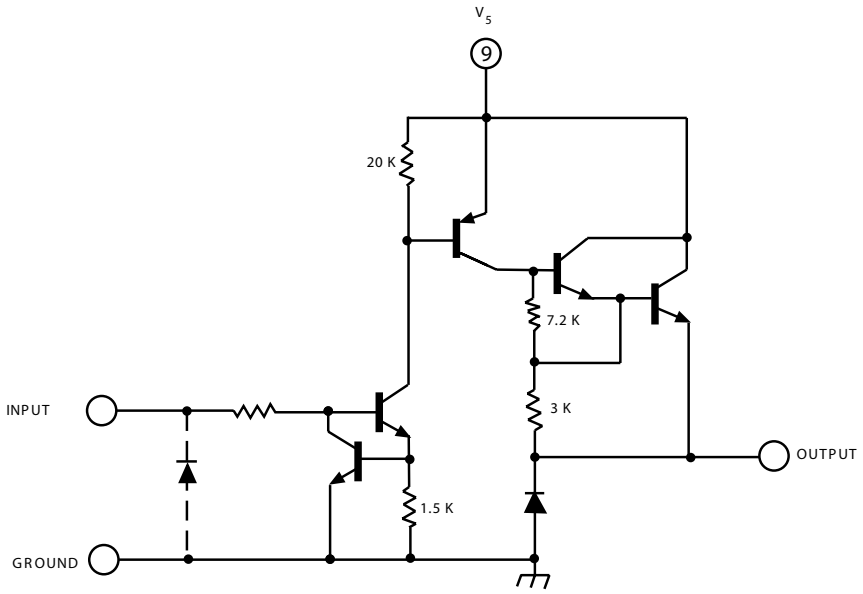
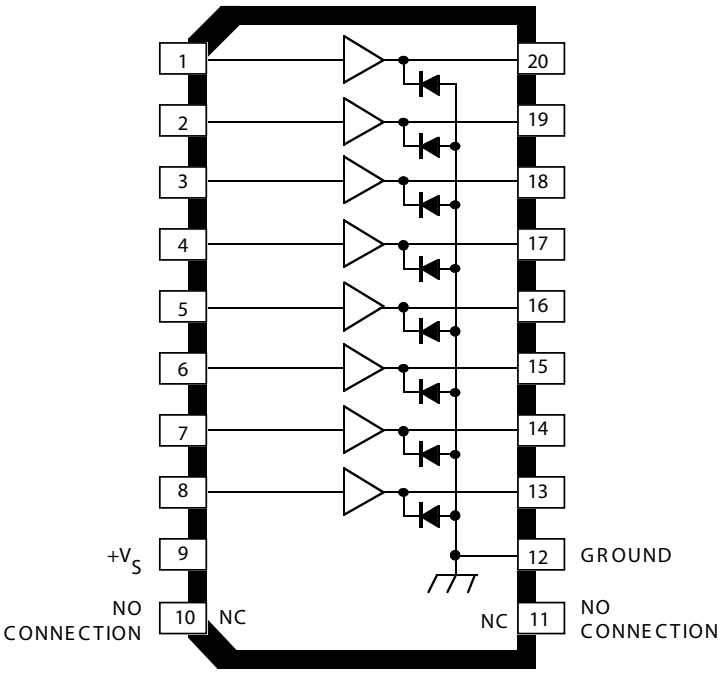
One of Eight Drivers

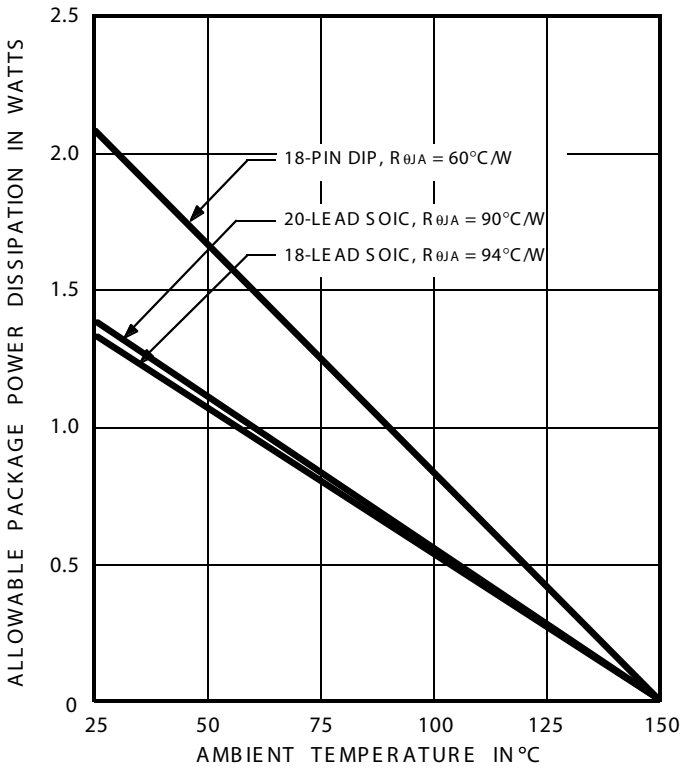


Dwg. No. A-10,242B

A2982SLW



Dwg. PP-064-2



Dwg. GP-022-4A

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ELECTRICAL CHARACTERISTICS at T_A = +25°C (unless otherwise specified).

Characteristic	Symbol	Applicable Devices	Test Conditions	Test Fig.	Limits Min.	Typ.	Max.	Units
Output Leakage Current	I_{CEX}	All	V_{IN} = 0.4 V*, V_S = 50 V, T_A = +70°C	1	—	—	200	µA
Output Sustaining Voltage	$V_{CE(SUS)}$	All	I_{OUT} = -45 mA	—	35	—	—	V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	All	V_{IN} = 2.4 V, I_{OUT} = -100 mA	2	—	1.6	1.8	V
			V_{IN} = 2.4 V, I_{OUT} = -225 mA	2	—	1.7	1.9	V
			V_{IN} = 2.4 V, I_{OUT} = -350 mA	2	—	1.8	2.0	V
Input Current	$I_{IN(ON)}$	UDN2981A	V_{IN} = 2.4 V	3	—	140	200	µA
			V_{IN} = 3.85 V	3	—	310	450	µA
		2982†	V_{IN} = 2.4 V	3	—	140	200	µA
			V_{IN} = 12 V	3	—	1.25	1.93	mA
Output Source Current (Outputs Open)	I_{OUT}	UDN2981A	V_{IN} = 2.4 V, V_{CE} = 2.0 V	2	-350	—	—	mA
		2982†	V_{IN} = 2.4 V, V_{CE} = 2.0 V	2	-350	—	—	mA
Supply Current Leakage Current	I_S	All	V_{IN} = 2.4 V*, V_S = 50 V	4	—	—	10	mA
Clamp Diode	I_R	All	V_R = 50 V, V_{IN} = 0.4 V*	5	—	—	50	µA
Clamp Diode	V_F	All	I_F = 350 mA	6	—	1.5	2.0	V
Turn-On Delay	t_{ON}	All	0.5 E_{IN} to 0.5 E_{OUT}, R_L = 100Ω, V_S = 35 V	—	—	0.3	2.0	µs
Turn-Off Delay	t_{OFF}	All	0.5 E_{IN} to 0.5 E_{OUT}, R_L = 100Ω, V_S = 35 V, See Note	—	—	2.0	10	µs

NOTES: Turn-off delay is influenced by load conditions. Systems applications well below the specified output loading may require timing considerations for some designs, i.e., multiplexed displays or when used in combination with sink drivers in a totem pole configuration.

All unused inputs must be connected to ground. Pulldown resistors (≈ 10 kΩ) are recommended for inputs that are allowed to float while power is being applied to V_S.

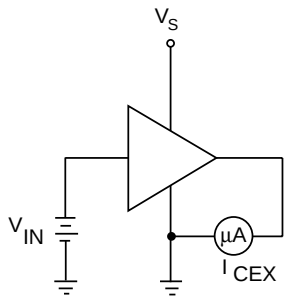
Negative current is defined as coming out of (sourcing) the specified device terminal.

* All inputs simultaneously.

† Complete part number includes a prefix (A or UDN) and a suffix (A or SLW) as follows: UDN2981A, UDN2982A, UDN2982LW, or A2982SLW.

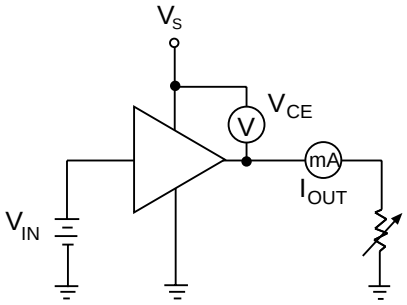
TEST FIGURES

Figure 1



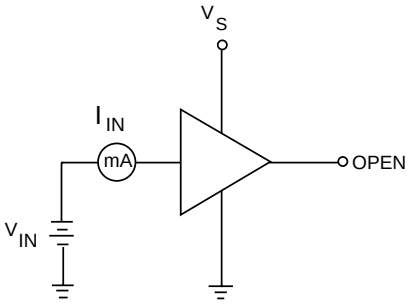
Dwg. No. A-11,083

Figure 2



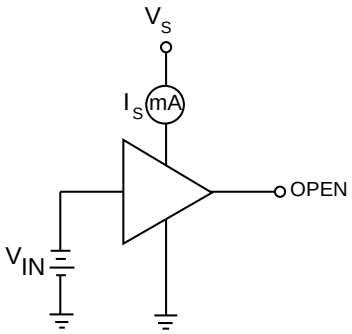
Dwg. No. A-11,084

Figure 3



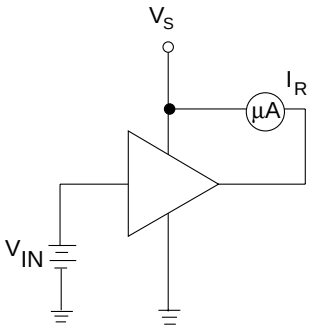
Dwg. No. A-11,085

Figure 4



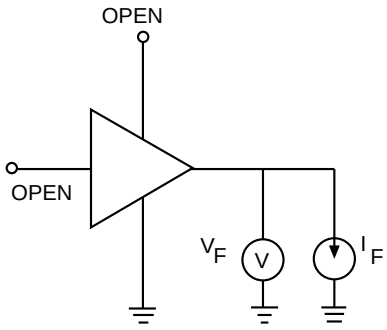
Dwg. No. A-11,086

Figure 5



Dwg. No. A-11,087

Figure 6



Dwg. No. A-11,088

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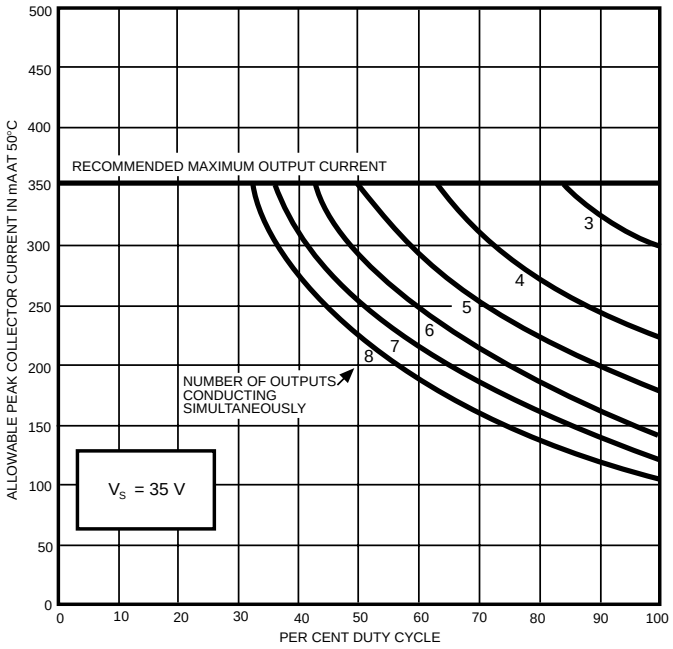
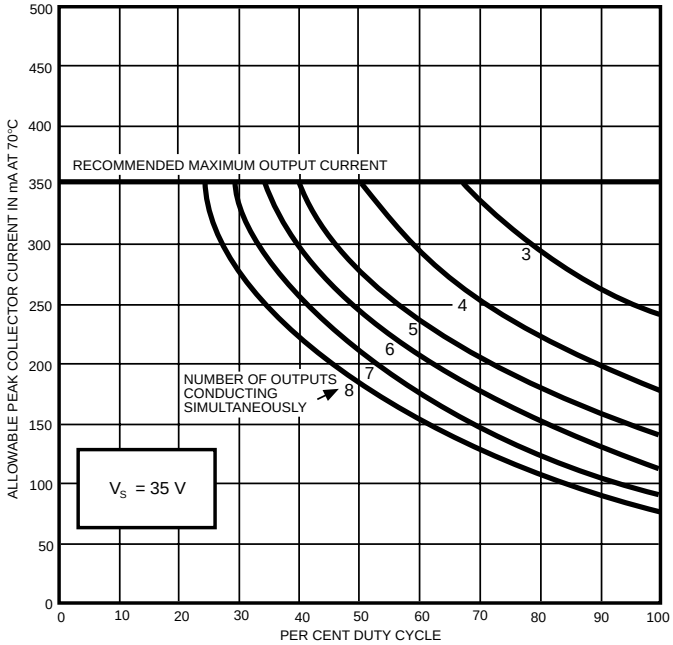
Allowable peak collector current as a function of duty cycle

Series UDN2980A

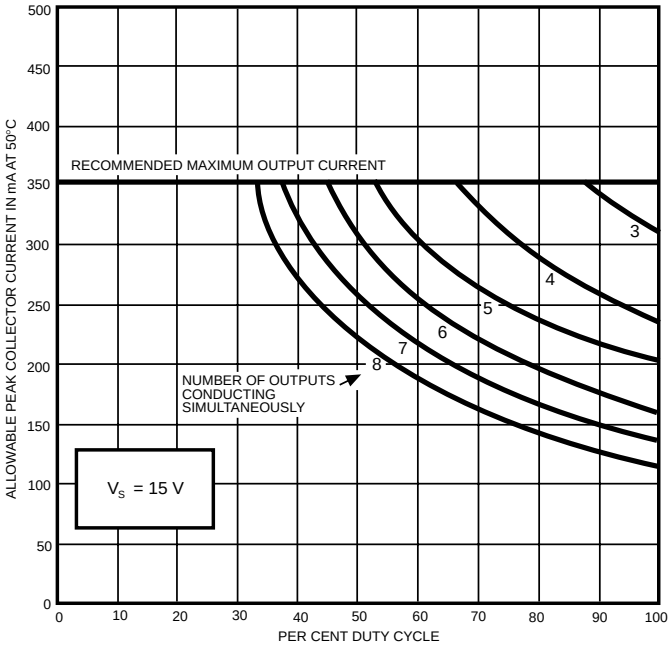


Dwg. No. A-11,106B

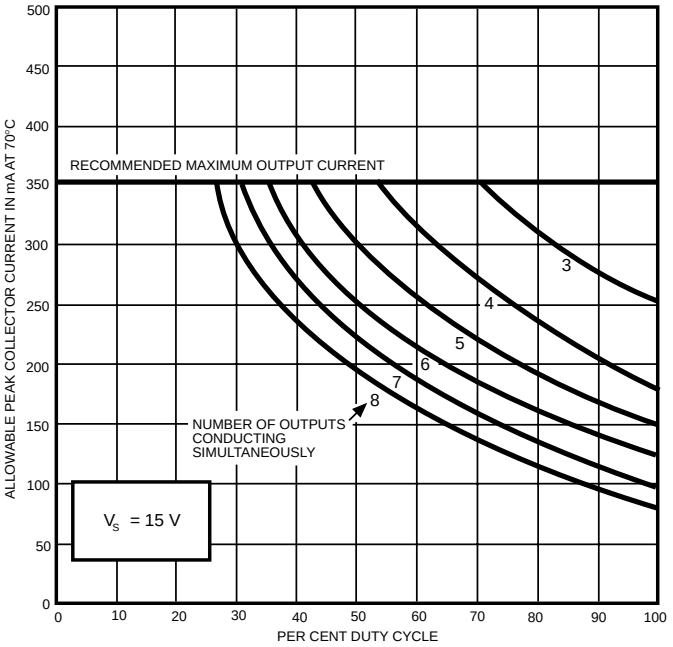


Dwg. No. A-11,111B

UDN2981A and UDN2982A

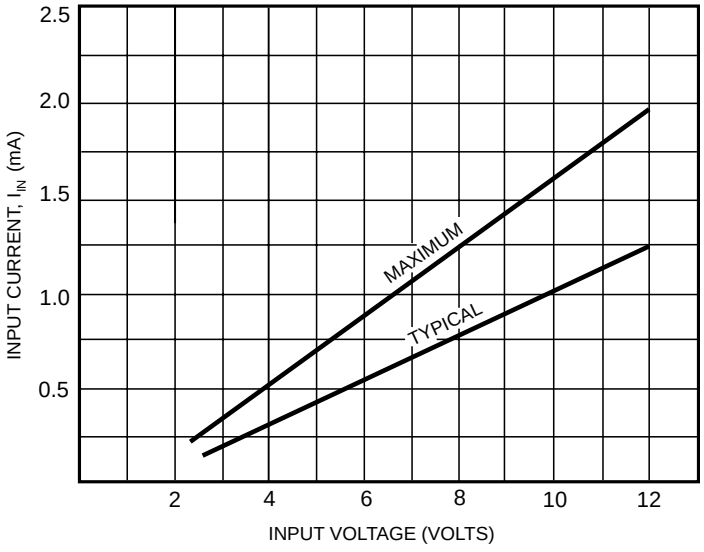


Dwg. No. A-11,107B



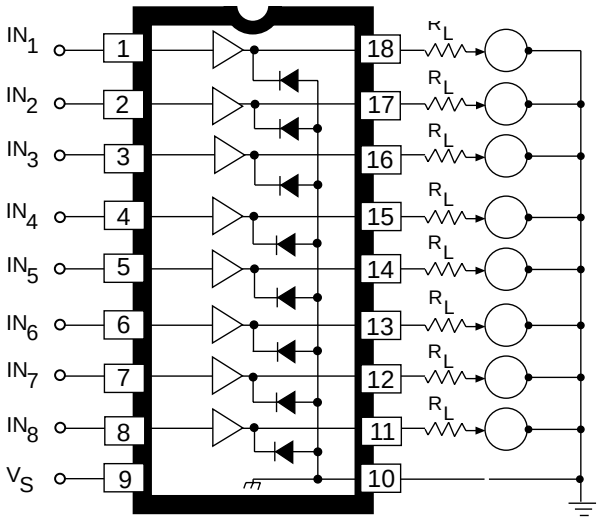
Dwg. No. A-11,108B

Input current as a function of input voltage



Dwg. No. A-11,115B

Typical electrosensitive printer application



Dwg. No. A-11,113A

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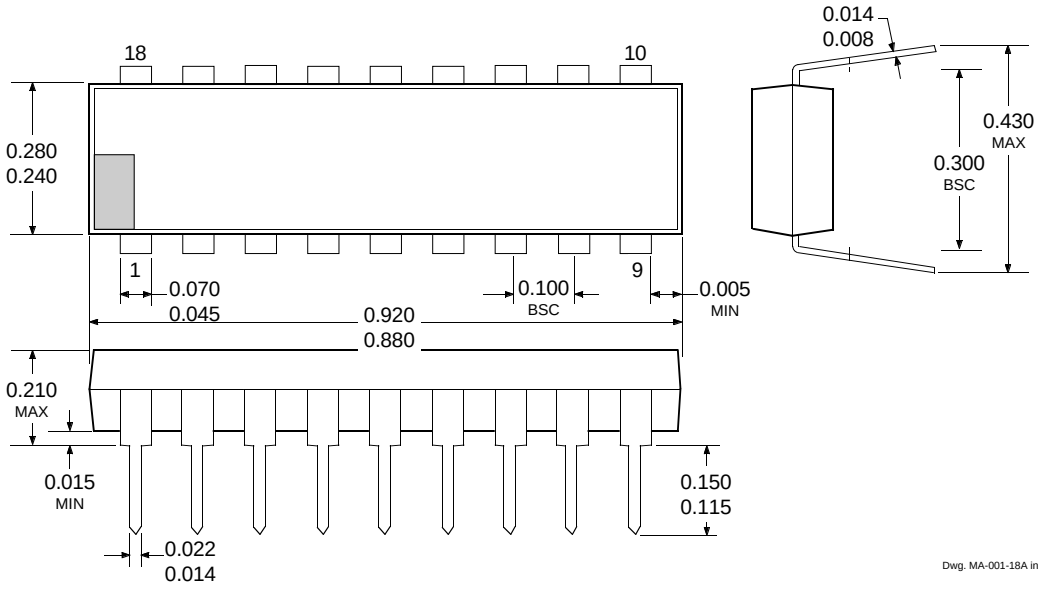
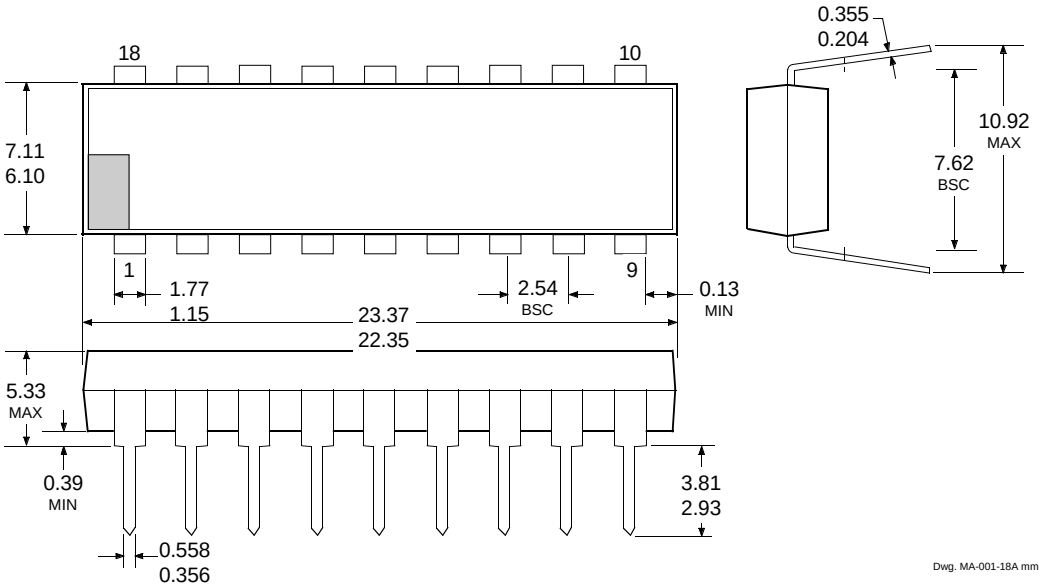
UDN2981A and UDN2982A

Dimensions in Inches
(controlling dimensions)



Dimensions in Millimeters
(for reference only)



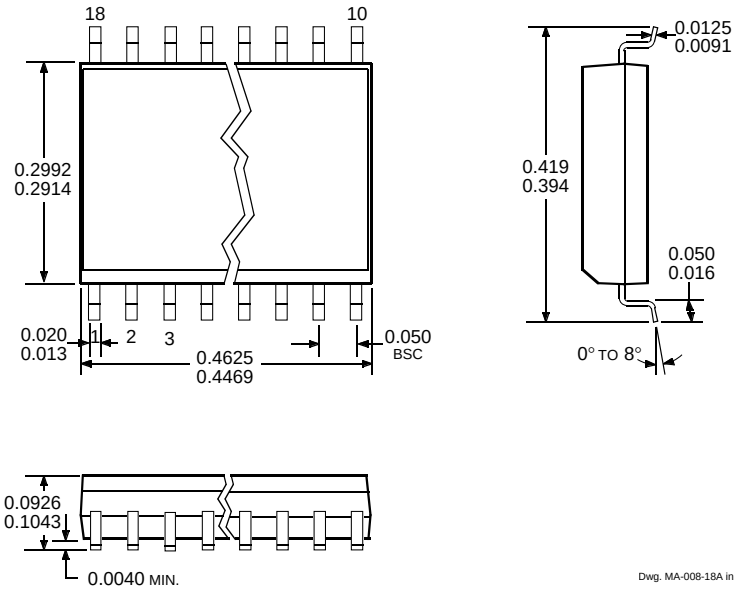
NOTES: 1. Exact body and lead configuration at vendor's option within limits shown.
2. Lead spacing tolerance is non-cumulative.
3. Lead thickness is measured at seating plane or below.
4. Supplied in standard sticks/tubes of 21 devices.

UDN2982LW

(add “TR” to part number for tape and reel)

Dimensions in Inches

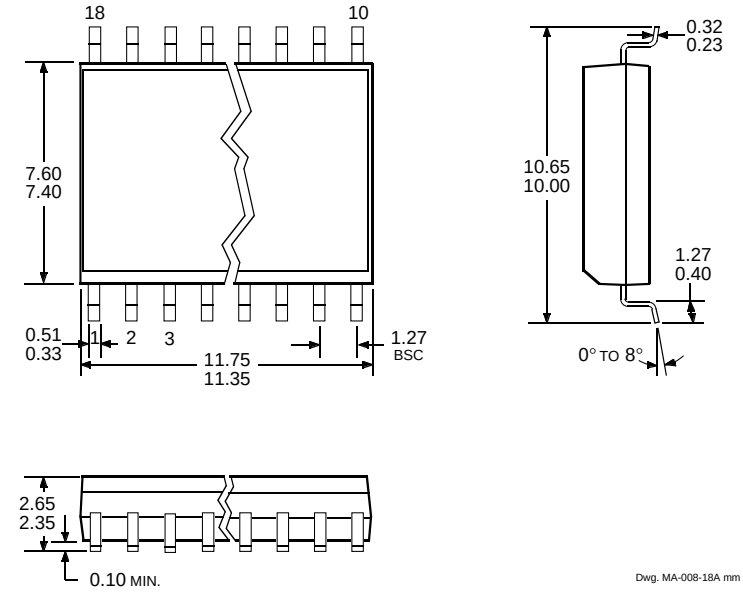
(for reference only)



Dwg. MA-008-18A in

Dimensions in Millimeters

(controlling dimensions)



Dwg. MA-008-18A mm

NOTES: 1. Exact body and lead configuration at vendor’s option within limits shown.
2. Lead spacing tolerance is non-cumetive.
3. Supplied in standard sticks/tubes of 41 devices or add “TR” to part number for tape and reel.

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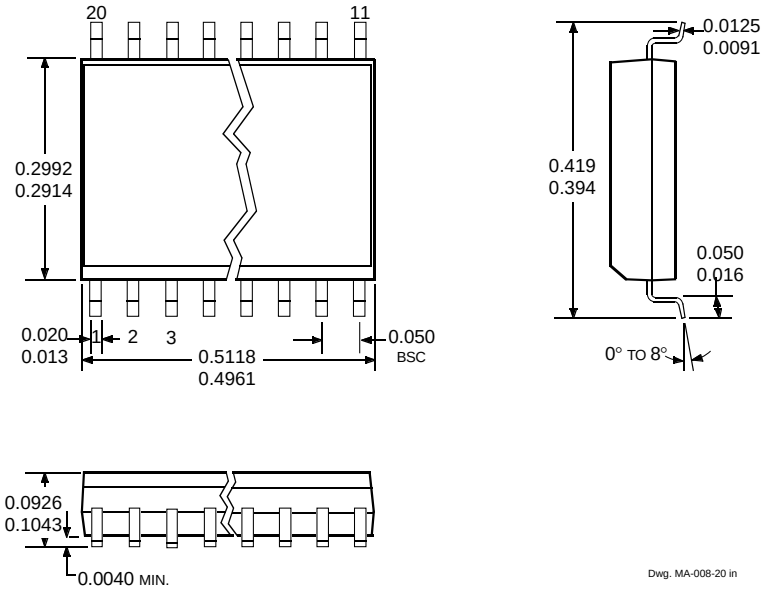
A2982SLW

(add “TR” to part number for tape and reel)

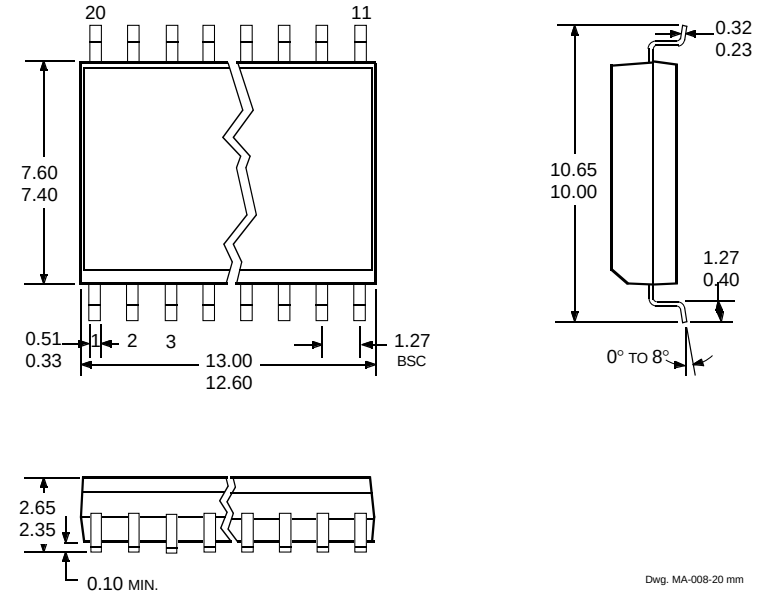
Dimensions in Inches

(for reference only)



Dimensions in Millimeters

(controlling dimensions)



NOTES: 1. Exact body and lead configuration at vendor’s option within limits shown.
2. Lead spacing tolerance is non-cumulative.
3. Supplied in standard sticks/tubes of 37 devices or add “TR” to part number for tape and reel.

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