



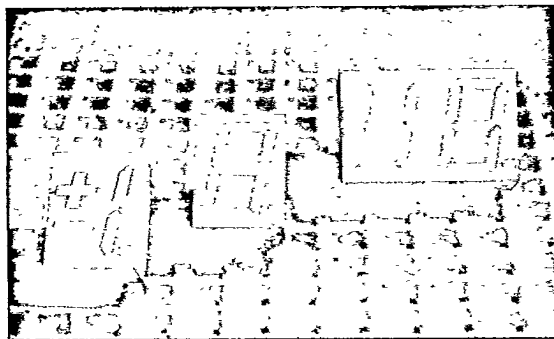
LED Displays

7 SEGMENT, .3 INCH

AND332 Series
AND333 Series
AND334 Series

AND335 Series
AND322 Series
AND323 Series

T-41-33



FEATURES

- 0.3" character height
- Available in RED or GREEN
- Application: Numerical Readout for Instrument and Industrial products
- Industry pin for pin compatibility
- Both common cathode or common anode are available
- Single or dual digit displays

Number of Digits	Common		Color		Number of Pins
	Cathode	Anode	Display	Face	
1	AND332R	-	Red	Red	10
1	AND332G	-	Green	Green	10
1	-	AND333R/AND335R*	Red	Red	14
1	-	AND333G/AND335G*	Green	Green	14
1/2	AND334R		Red	Red	14
1/2	AND334G		Green	Green	14
2	AND322R	AND323R	Red	Red	14
2	AND322G	AND323G	Green	Green	14

Absolute Maximum Ratings (T = 25°C)

Characteristic	Symbol	AND33X	AND32X	Unit
DC Forward Current/Segment	$I_F(DC)/SEG$	20	13	mA
Pulse Forward Current/Segment	I_{FP}/SEG	110	60	mA
Reverse Voltage/Segment	V_R	6	3	V
Operating Temperature Range	T_{opr}	-40 to 85	-30 to 75	°C
Storage Temperature Range	T_{stg}	-40 to 85	-30 to 80	°C

Electro-Optical Characteristics

Characteristics	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage						
AND33X	V_F	$I_F = 10mA$	1.7	2	2.5	V
AND32X	V_F	$I_F = 13mA$	1.8	2.1	2.5	V
Reverse Current	I_R	$V_R = 6V$			5	μA
Luminous Intensity Per Segment						
AND33X	Red	$I_V = 5mA$	0.3	0.6		mcd
	Green	$I_V = 10mA$	0.13	0.4		mcd
AND32X	Red	$I_V = 5mA$	0.13	0.26		mcd
	Green	$I_V = 10mA$		0.34		mcd

* AND333 Series, right hand decimal point
AND335 Series, left hand decimal point



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Electro-Optical Characteristics (Continued)

Characteristics	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity Matching Ratio						
AND33X	I_V-M	$I_F = 10mA$			2.3	
AND32X	I_V-M	$I_F = 5mA$			2.5	
Peak Emission Wave Length						
AND33X	Red	λ_P	$I_F = 10mA$	700		nm
	Green	λ_P	$I_F = 10mA$	565		nm
AND32X	Red	λ_P	$I_F = 5mA$	700		nm
	Green	λ_P	$I_F = 5mA$	565		nm
Spectral Line Half Width						
AND33X	Red	$\Delta\lambda$	$I_F = 10mA$	100		nm
	Green	$\Delta\lambda$	$I_F = 10mA$	30		nm
AND32X	Red	$\Delta\lambda$	$I_F = 5mA$	100		nm
	Green	$\Delta\lambda$	$I_F = 5mA$	30		nm

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LED Displays

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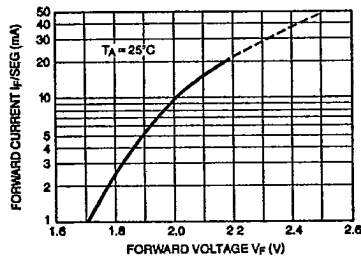
AND332 Series
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AND322 Series
AND323 Series

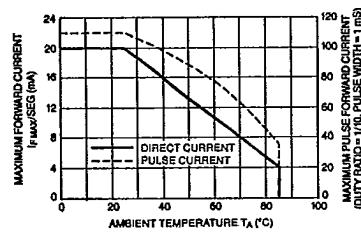
T-41-33

AND330 Series

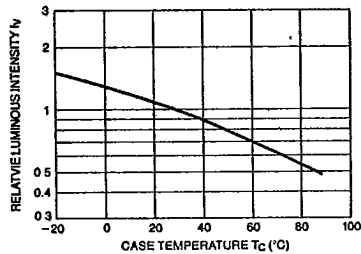
I_F/SEG vs. V_F



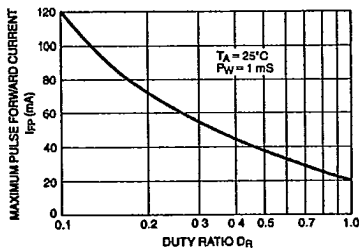
I_{FMAX}/SEG vs. T_A



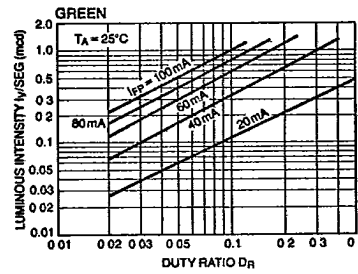
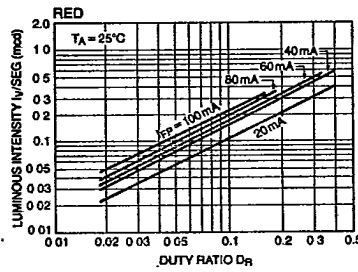
I_V vs. T_C



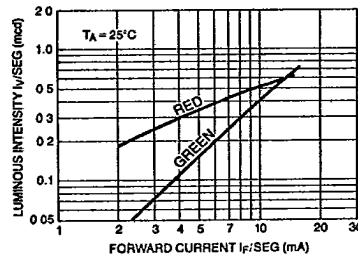
I_{FP} vs. D_R



I_V/SEG vs. D_R



I_V/SEG vs. I_F/SEG





LED Displays

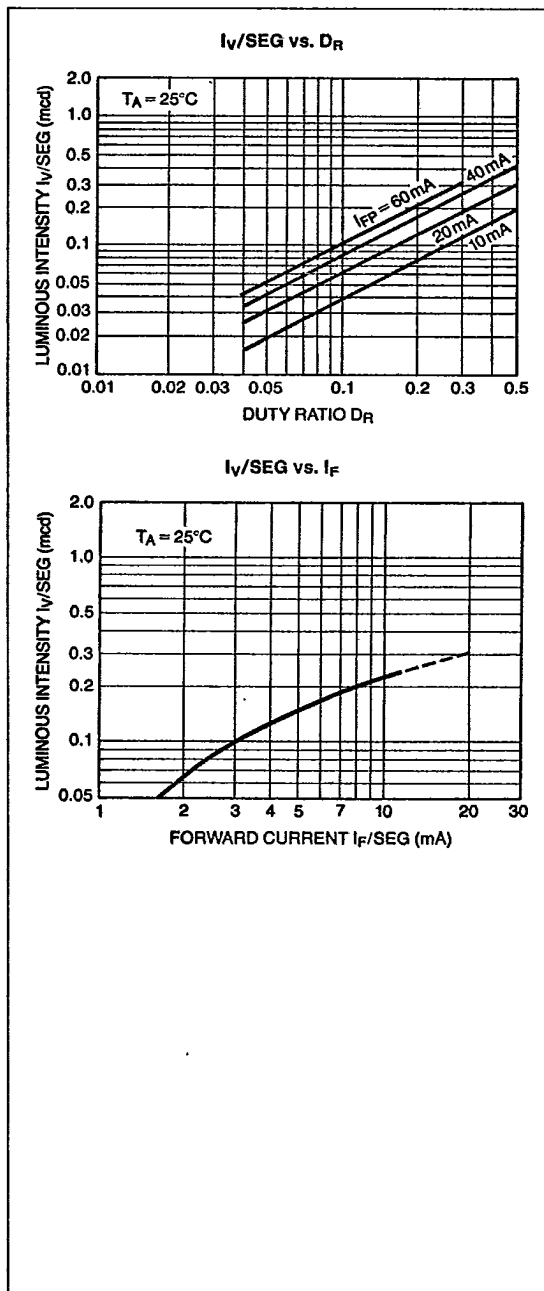
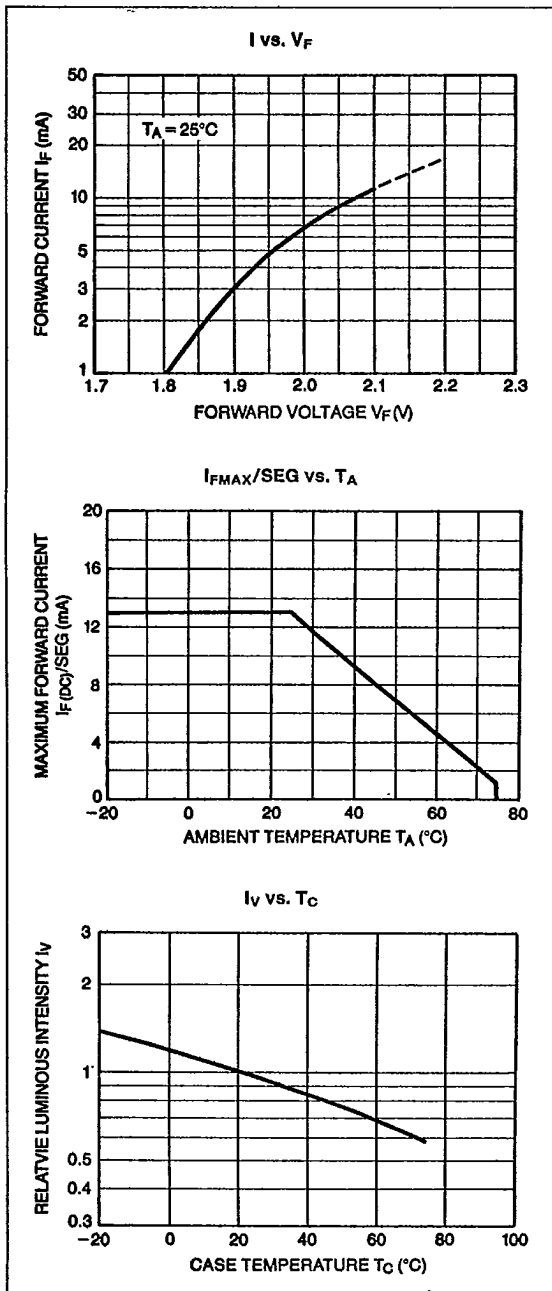
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AND320 Series

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LED Displays

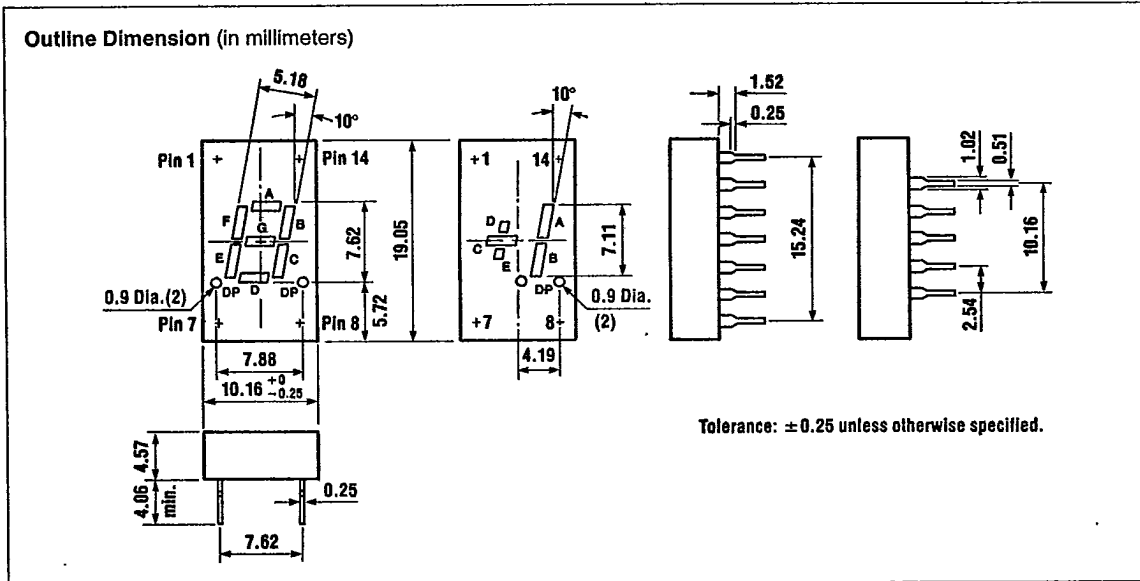
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AND330 Series



Pin Connection

AND332

Pin No.	Connection
1	Common Cathode
2	Anode F
3	Anode G
4	Anode E
5	Anode D
6	Common Cathode
7	Anode DP (right)
8	Anode C
9	Anode B
10	Anode A

AND333

Pin No.	Connection
1	Cathode A
2	Cathode F
3	Common Anode
4	No Pin
5	No Pin
6	No Connection
7	Cathode E
8	Cathode D
9	Cathode DP (right)
10	Cathode C
11	Cathode G
12	No Pin
13	Cathode B
14	Common Anode

AND335

Pin No.	Connection
1	Cathode A
2	Cathode F
3	Common Anode
4	No Pin
5	No Pin
6	Cathode DP (left)
7	Cathode E
8	Cathode D
9	No Connection
10	Cathode C
11	Cathode G
12	No Pin
13	Cathode B
14	Common Anode

AND334

Pin No.	Connection
1	Anode D
2	No Pin
3	Cathode D
4	Cathode C
5	Cathode E
6	Anode E
7	Anode C
8	Anode DP (right)
9	No Pin
10	Cathode DP (right)
11	Cathode B
12	Cathode A
13	Anode A
14	Anode B



LED Displays

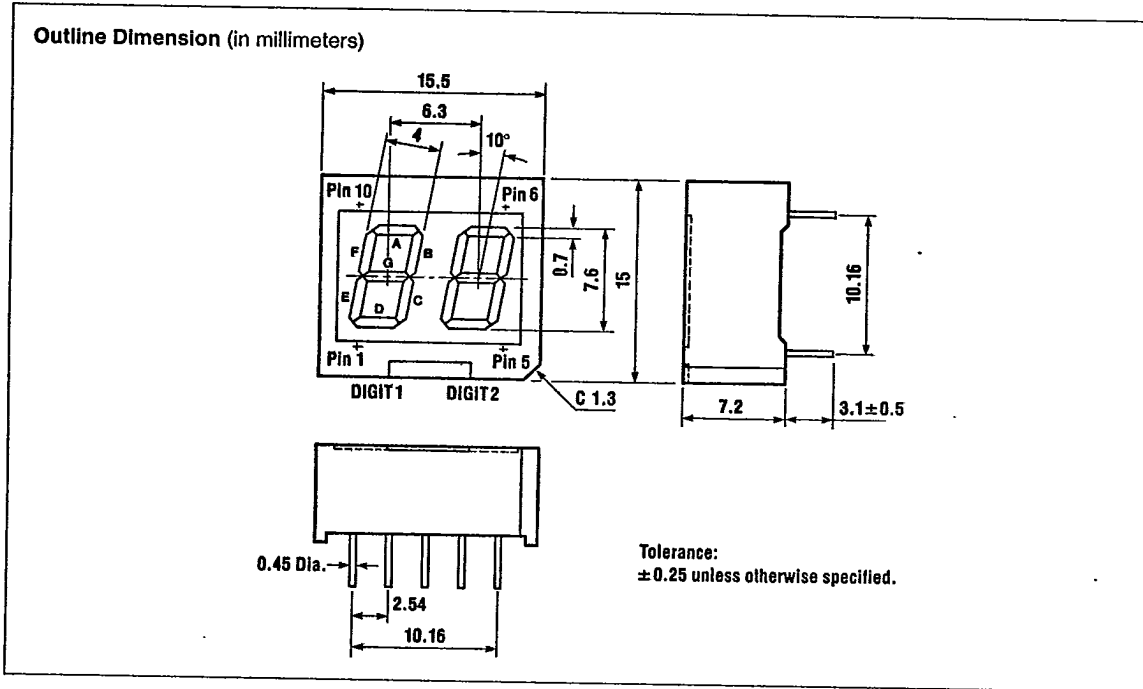
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AND335 Series
AND322 Series
AND323 Series

T-41-33

AND320 Series



Pin Connection

AND322

Pin No.	Connection
1	Anode G
2	No Pin
3	Anode A
4	Anode F
5	Digit 2 Common Cathode
6	Anode D
7	Anode E
8	Anode C
9	Anode B
10	Digit 1 Common Cathode

AND323

Pin No.	Connection
1	Cathode G
2	No Pin
3	Cathode A
4	Cathode F
5	Digit 2 Common Anode
6	Cathode D
7	Cathode E
8	Cathode C
9	Cathode B
10	Digit 1 Common Anode