

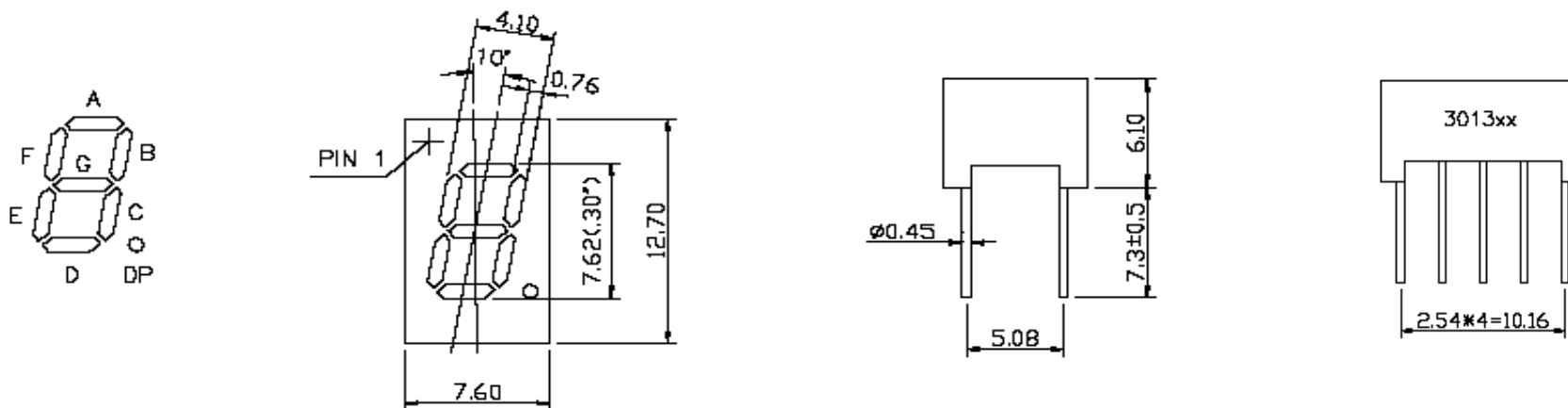
# EDCON-COMPONENTS



The Power of LED Light



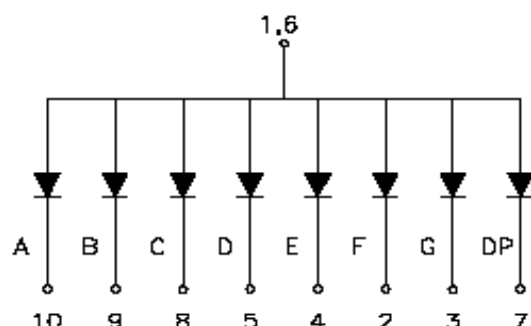
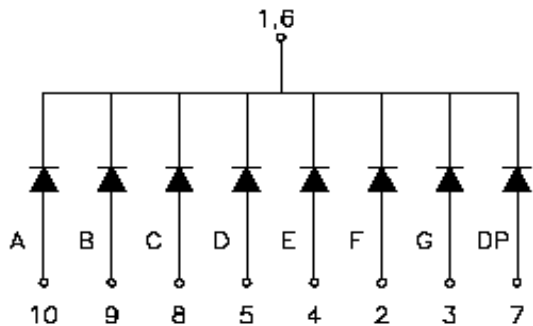
## Dimensions / Informations Model No. 3



### Package Dimensions & Internal Circuit Diagramm

Diode Drive Code A

Diode Drive Code B



### Features

- Low Current Operation
- Excellent Character appearance
- Easy mounting on P.C. Board or Sockets
- Standard Brightness / Ultra Brightness
- All Dimensions are in millimeters (inches).
- Tolerance is +/- 0,25 (0,01") unless otherwise specified.
- Specifications are subject to change without notice.

**Segment Display Digit  
Height 7,62mm**

Part No.: **M21A1009**

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	30.09.2010
APPD:	Schumi			FINISH	Jamy		Sheet No.		1 from 6

Customer:

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## Description

Emitting Order Code (nm)	Emitting Color	Dice Material	Peak Wave Length	Spectral Line Width	Forward Voltage (VF)		Luminous Intensity (Iv) Unit: mcd
					Unit:V	Unit:V	
700A	Red	GaP	700nm	90nm	2,20	2,50	5,0
660A	Hi Red	AlGaAs, (A)	660nm	20nm	1,80	2,20	15~20
660B	Super Red	AlGaAs, (B)	660nm	20nm	1,80	2,20	20~30
660C	Ultra Red	AlGaAs, (C)	660nm	20nm	1,90	2,40	26~38
640A	High Efficiency Red	GaAsP	640nm	45nm	1,90	2,40	50~80
630A	Orange	GaAsP	630nm	35nm	2,10	2,50	10~20
610A	Amber	GaAsP	610nm	35nm	2,10	2,50	15~20
590A	Yellow	GaAsP	590nm	35nm	2,10	2,50	15~20
570A	Green	GaP	570nm	30nm	2,10	2,50	14~18
645U	Ultra Hi Red	AlGaInP	645nm	20nm	2,10	2,50	80~50
630U	Ultra Orange	AlGaInP	630nm	20nm	2,10	2,50	180~120
610U	Ultra Amber	AlGaInP	610nm	20nm	2,10	2,50	90~120
590U	Ultra Yellow	AlGaInP	590nm	20nm	2,10	2,50	150~200
570U	Ultra Green	AlGaInP	570nm	30nm	2,20	2,50	60~100
520U	Ultra Pure Green	InGaN	520nm	36nm	2,80	3,80	260~310
505U	Ultra Blue Green	InGaN	505nm	36nm	2,80	3,80	260~310
430U	Blue	InGaN	430nm	30nm	2,80	3,80	10~20
470U	Ultra Blue Green	InGaN	470nm	30nm	2,80	3,80	80~90
405U	UViolett	InGaN	405nm		2,80	3,80	5~8
2930	White	InGaN	X=0,29 / Y=0,30		2,80	3,80	180~200
2931	Ultra White	InGaN	X=0,29 / Y=0,30		2,80	3,80	180~200

Color Code & Chip Characteristics: Test conditions: IF=20mA

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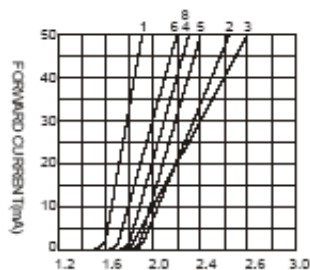
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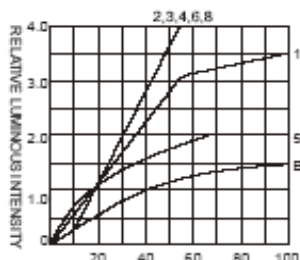
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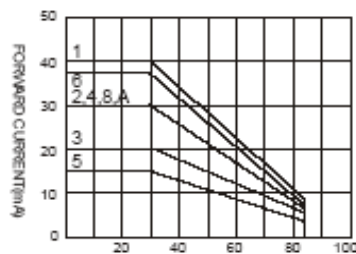
## Characteristics



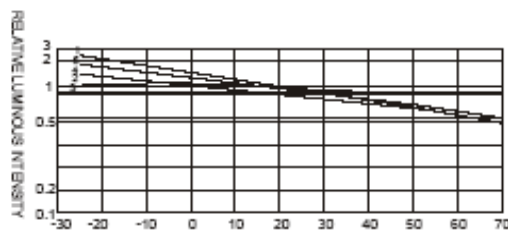
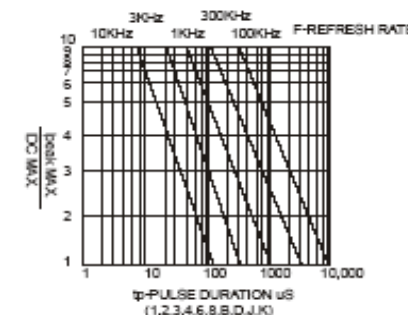
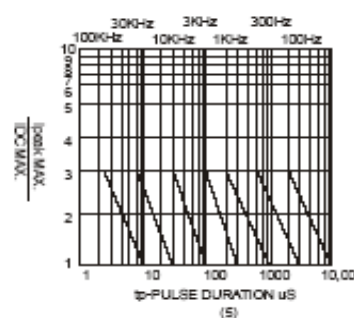
FORWARD VOLTAGE (V)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



AMBIENT TEMPERATURE T<sub>a</sub> (°C)  
FORWARD CURRENT VS. AMBIENT  
TEMPERATURE



AMBIENT TEMPERATURE T<sub>a</sub> (°C)

Note: 25°C free air temperature unless otherwise specified

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[www.edcon-components.com](http://www.edcon-components.com)

email: [info@edcon-components.com](mailto:info@edcon-components.com)

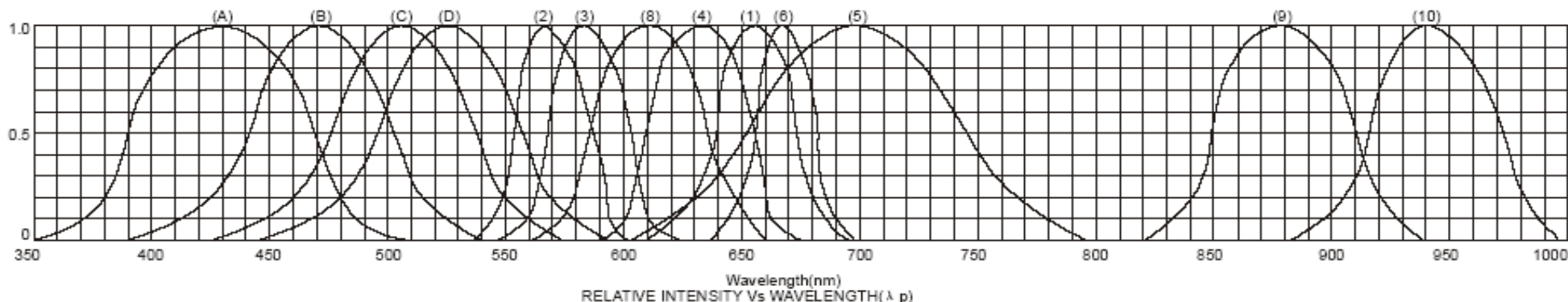
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## Characteristics



- |   |                                  |
|---|----------------------------------|
| 1 GaAsPI/GaAs 655nm Red                 | 9 GaAlAs 880nm                   |
| 2 GaP 570nm / Yellow Green              | 10 GaAs/GaAs & GaAlAs/GaAs 940nm |
| 3 GaAsP/GaP 585nm / Yellow              | A GaN/SiC 430nm Blue             |
| 4 GaAsP/GaP 635nm / Orange & Hi Eff Red | B InGaN/SiC 470nm Blue           |
| 5 GaP 700nm Bright /Red                 | C InGaN/SiC 505nm Ultra Green    |
| 6 GaAlAs/GaAs 660nm / Super Red         | D InGaN/SiC 525nm Ultra Green    |
| 8 GaAsPI/GaP 610nm / Super Red          |                                  |

Parameter	Symbol	Test Conditions	Value		Unit
			Min	Max	
Reverse Voltage	VR	IR=30μA	5	----	V
Forward Voltage	IF	----	----	30	mA
Power Dissipation	Pd	----	----	100	mW
Pulse Current	Ipeak	Duty= 0,1mS 1KHZ	----	150	mA
Operating Temperature	Topr	----	-40	+85	°C
Storage Temperature	Tstr	----	-40	+85	°C

Absolute maximum ratings (Ta=25°C)

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## Ordering Informations

Serie	Digit Height Code	Quantity of Digits	Model Number	Diode Drive Code	Emitting Color (nm)	Surface Color Code	Segment Color Code	Lead Length Code	ROHS	Package
<b>M21A1009</b>	<b>30</b>	<b>1</b>	<b>3</b>	<b>A</b>	<b>700A</b>	<b>2</b>	<b>1</b>	<b>62</b>	<b>R</b>	<b>TY</b>

<b>30= 0,30"</b> Digit Dimension	<b>1= Single</b> Digit	<b>3= Model</b> Number 3	<b>A= Commun</b> Cathode	Standard	Ultra Brightn	<b>0= White</b> Surface	<b>0= Water</b> Clear	<b>62= Lead</b> Length 6,2mm	<b>R= ROHS</b> conform	<b>TY= Tray</b> Packing (Standard)											
				<b>700A= Red</b>	<b>645U= Hi</b> Red						<b>1= Black</b> Surface	<b>1= White</b> Diffused	<b>xx= Lead</b> length Specified	<b>N= NON</b> ROHS conform	<b>TU= Tube</b> Packing on Request						
				<b>660A= Hi</b> Red	<b>630U= Ultra</b> Orange											<b>2= Gray</b> Surface	<b>2= Red</b> Diffused				
				<b>660B= Super</b> Red	<b>610U= Ultra</b> Amber													<b>3= Red</b> Surface	<b>3= Green</b> Diffused		
				<b>660C= Ultra</b> Red	<b>590U= Ultra</b> Yellow															<b>4= Green</b> Surface	<b>4= Yellow</b> Diffused
				<b>640A= HE</b> Red	<b>570U= Ultra</b> Green																
				<b>630A=</b> Orange	<b>520U= Ultra</b> Pure Green																
				<b>610A=</b> Amber	<b>505U= Ultra</b> Blue Green																
				<b>590A=</b> Yellow	<b>470U= Ultra</b> Blue																
				<b>570A= Green</b>	<b>430U= Blue</b>																
	<b>405U= Ultra</b> Violett																				
	<b>2930= White</b>	<b>2931= Ultra</b> White																			

**Segment Display Digit  
Height 7,62mm**

Part No.: **M21A1009**

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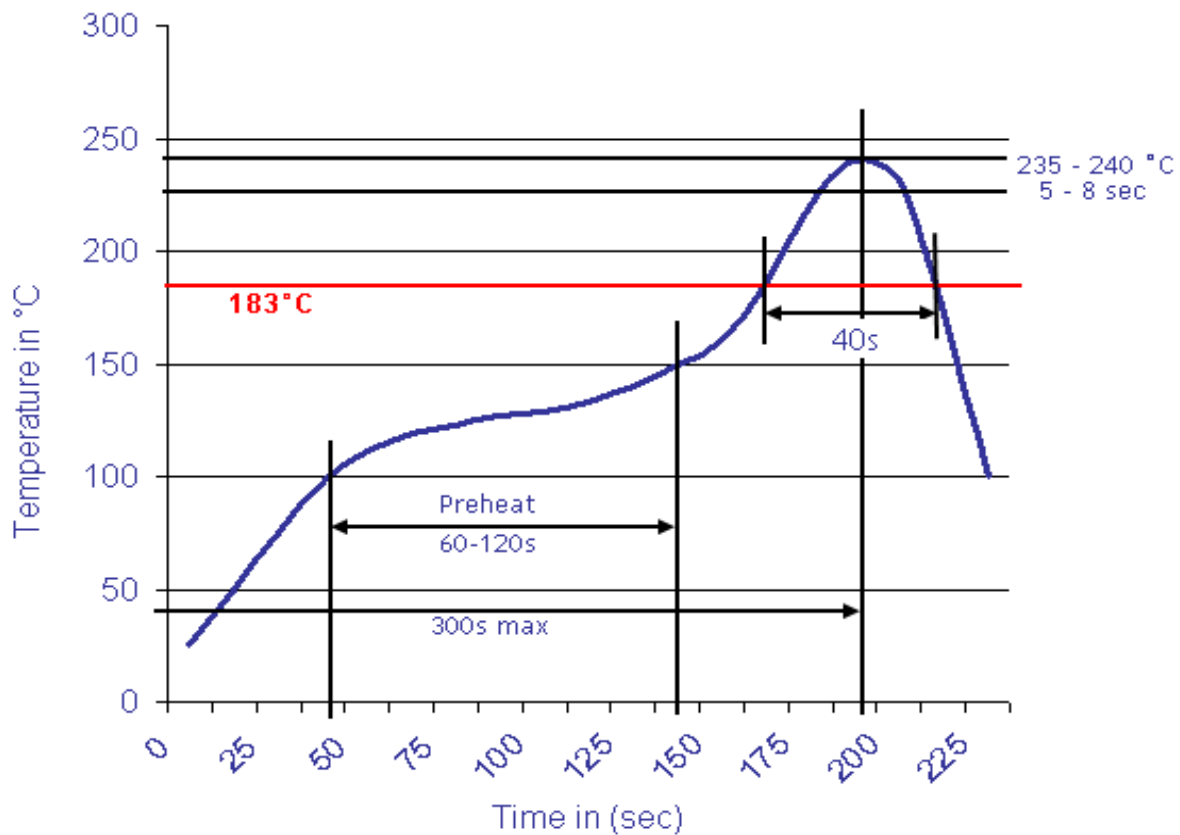


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Soldering Profile Curve

Classification Reflow Profile (JEDEC J-STD-020C)



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