

#### 18mm (0.7 INCH) SINGLE COLOR DOT MATRIX **DISPLAYS**

TA07-11EWA / TC07-11EWA TA07-11SRWA / TC07-11SRWA TA07-11YWA / TC07-11YWA TA07-11GWA / TC07-11GWA

#### **Features**

- •0.7 INCH MATRIX HEIGHT.
- ●DOT SIZE 2mm.
- •LOW CURRENT OPERATION.
- •COMPATIBLE WITH ASCII AND EBCDIC CODES.
- •STACKABLE VERTICALLY AND HORIZONTALLY.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- •MECHANICALLY RUGGED.
- •STANDARD: GRAY FACE, WHITE DOT.

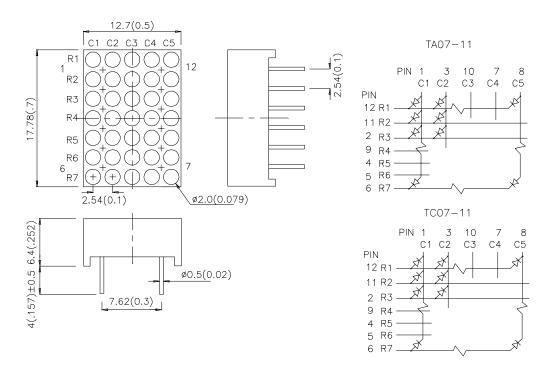
#### Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode. The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

#### Package Dimensions & Internal Circuit Diagram



1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25(0.01")$ unless otherwise noted. 2. Specifications are subject to change whitout notice.

SPEC NO: DSAD0028 **REV NO: V.2 DATE: DEC/22/2002 PAGE: 1 OF 5** APPROVED: J. Lu **CHECKED:** Joe Lee DRAWN: L.ZHANG

#### **Selection Guide**

Part No.	Dice	Lens Type	<b>lv (ucd)</b> @ 10 mA		Description	
			Min.	Тур.	Boomphon	
TA07-11EWA	HIGH EFFICIENCY RED	WHITE DIFFUSED	3000	8000	Column Anode	
TC07-11EWA	(GaAsP/GaP)				Column Cathode	
TA07-11SRWA	CUDED DDICUT DED (COAIAO)	WHITE DIFFUSED	8000	24000	Column Anode	
TC07-11SRWA	SUPER BRIGHT RED (GaAlAs)				Column Cathode	
TA07-11YWA	VELLOW (CoAoD/CoD)	WHITE DIFFUSED	1900	4700	Column Anode	
TC07-11YWA	YELLOW (GaAsP/GaP)				Column Cathode	
TA07-11GWA	CDEEN (CoD)	WHITE DIFFUSED	3000	8000	Column Anode	
TC07-11GWA	GREEN (GaP)				Column Cathode	

### Electrical / Optical Characteristics at T<sub>A</sub>=25°C

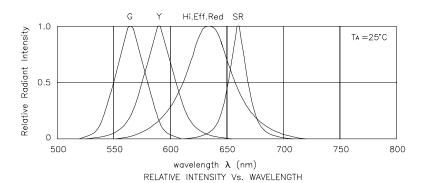
Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Super Bright Red Yellow Green	627 660 590 565		nm	IF=20mA
λD	Dominate Wavelength	High Efficiency Red Super Bright Red Yellow Green	625 640 588 568		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red Super Bright Red Yellow Green	45 20 35 30		nm	I==20mA
С	Capacitance	High Efficiency Red Super Bright Red Yellow Green	15 45 20 15		pF	Vr=0V;f=1MHz
VF	Forward Voltage	High Efficiency Red Super Bright Red Yellow Green	2.0 1.85 2.1 2.2	2.5 2.5 2.5 2.5	V	IF=20mA
lr	Reverse Current	All		10	uA	V <sub>R</sub> = 5V

SPEC NO: DSAD0028 REV NO: V.2 DATE: DEC/22/2002 PAGE: 2 OF 5
APPROVED: J. Lu CHECKED: Joe Lee DRAWN: L.ZHANG

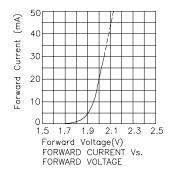
#### Absolute Maximum Ratings at T<sub>A</sub>=25°C

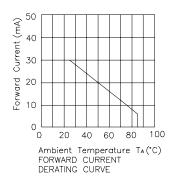
Parameter	High Efficiency Red	Super Bright Red	Yellow	Green	Units			
Power dissipation	105	100	105	105	mW			
DC Forward Current	30	30	30	25	mA			
Peak Forward Current [1]	160	155	140	140	mA			
Reverse Voltage	5	5	5	5	V			
Operating/Storage Temperature	-40°C To +85°C							
Lead Solder Temperature [2]	e [2] 260°C For 5 Seconds							

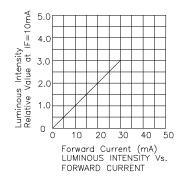
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
   2. 2mm below package base.

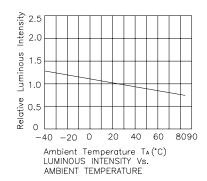


#### High Efficiency Red



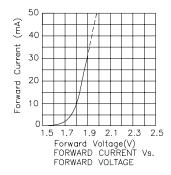


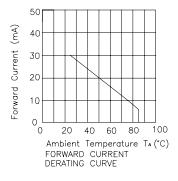


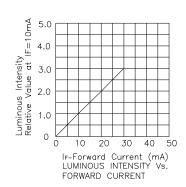


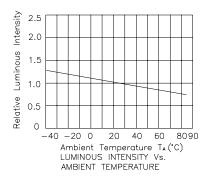
SPEC NO: DSAD0028 **REV NO: V.2** DATE: DEC/22/2002 **PAGE: 3 OF 5** APPROVED: J. Lu **CHECKED: Joe Lee DRAWN: L.ZHANG** 

#### Super Bright Red

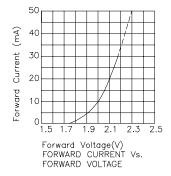


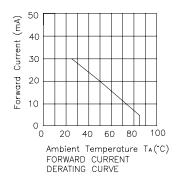


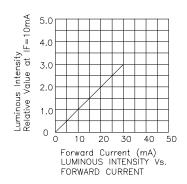


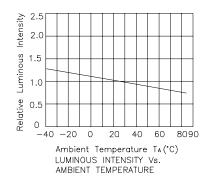


#### Yellow





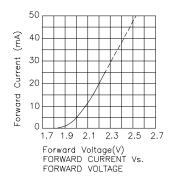


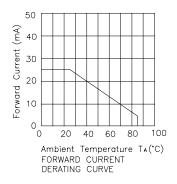


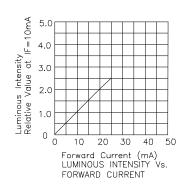
SPEC NO: DSAD0028 **REV NO: V.2 DATE: DEC/22/2002** PAGE: 4 OF 5 **CHECKED:** Joe Lee **DRAWN: L.ZHANG** 

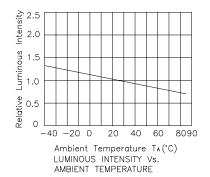
APPROVED: J. Lu

#### Green









SPEC NO: DSAD0028 APPROVED: J. Lu REV NO: V.2 CHECKED : Joe Lee DATE: DEC/22/2002 DRAWN: L.ZHANG PAGE: 5 OF 5