



EN: This Datasheet is presented by the manufacturer.

Please visit our website for pricing and availability at www.hestore.hu.

TA20-11EWA/SRWA/YWA/GWA
 TC20-11EWA/SRWA/YWA/GWA
 TBA20-11EGWA
 TBC20-11EGWA
 TBA20-12EGWA
 TBC20-12EGWA
 TBA20-22EGWA
 TBC20-22EGWA

Features

- 2.0 INCH MATRIX HEIGHT.
- DOT SIZE 5mm.
- LOW CURRENT OPERATION.
- HIGH CONTRAST AND LIGHT OUTPUT.
- COMPATIBLE WITH ASCII AND EBCDIC CODES.
- STACKABLE HORIZONTALLY.
- COLUMN CATHODE AND COLUMN ANODE AVAILABLE.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- APPLICABLE TO THREE COLORS - GREEN, ORANGE AND YELLOW (MIXED COLOR).
- CATEGORIZED FOR LUMINOUS INTENSITY.
- MECHANICALLY RUGGED.
- STANDARD: GRAY FACE, WHITE DOT.

Description

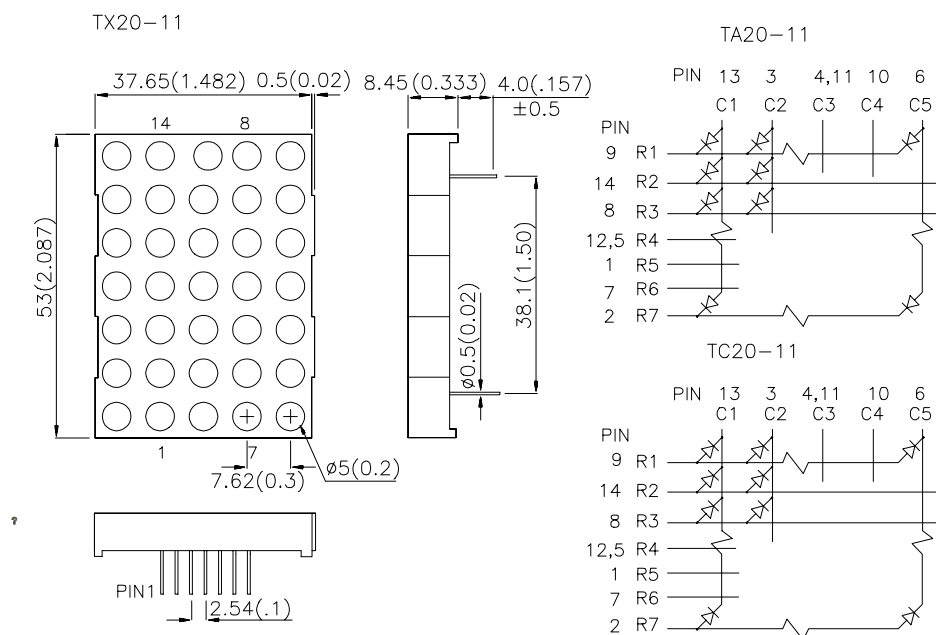
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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.

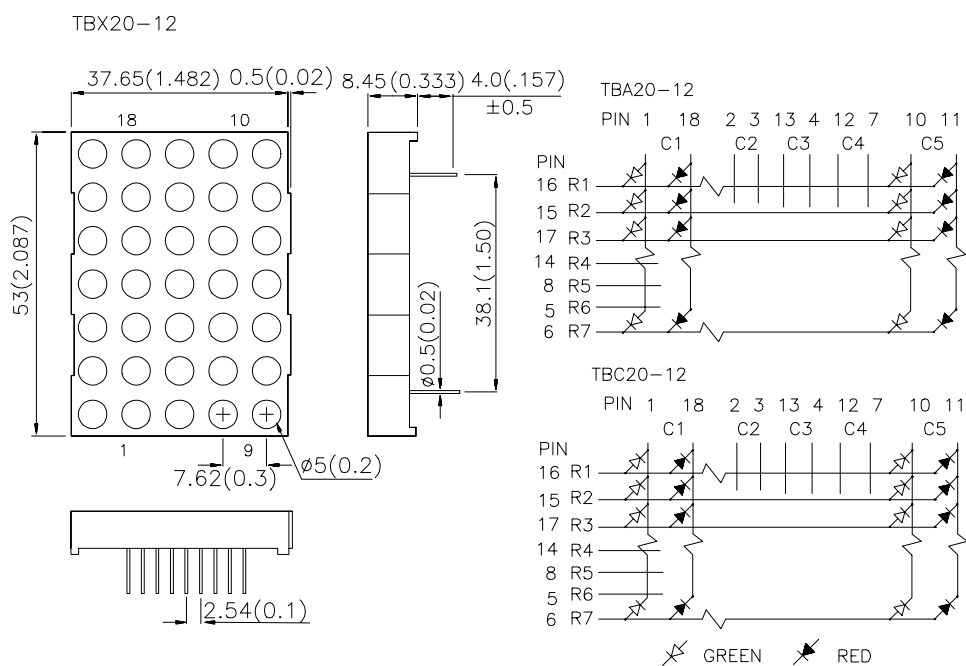
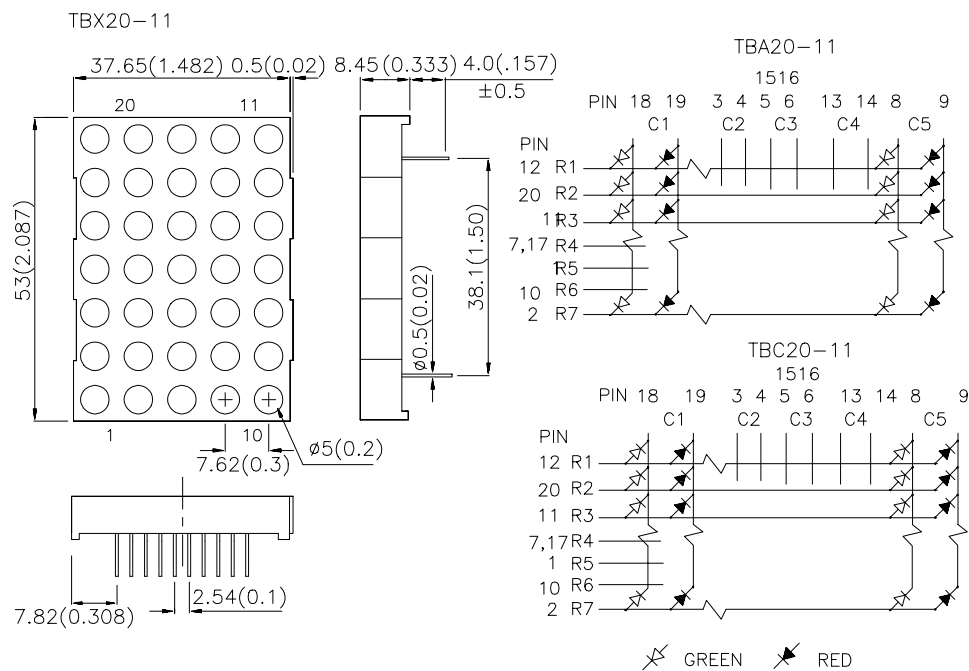
Package Dimensions & Internal Circuit Diagram

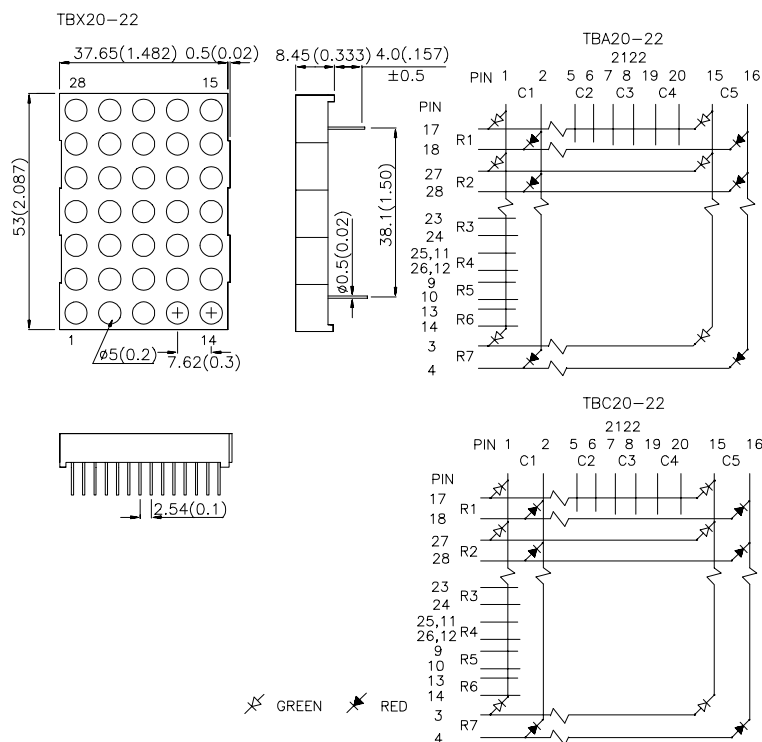


Notes:

1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
2. Specifications are subject to change without notice.

Package Dimensions & Internal Circuit Diagram





Notes:

1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
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Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) @ 10 mA		Description
			Min.	Typ.	
TA20-11EWA	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	4700	12000	Column Anode
TC20-11EWA					Column Cathode
TA20-11SRWA	SUPER BRIGHT RED (GaAlAs)	WHITE DIFFUSED	12000	26000	Column Anode
TC20-11SRWA					Column Cathode
TA20-11YWA	YELLOW (GaAsP/GaP)	WHITE DIFFUSED	3000	8000	Column Anode
TC20-11YWA					Column Cathode
TA20-11GWA	GREEN (GaP)	WHITE DIFFUSED	4700	16000	Column Anode
TC20-11GWA					Column Cathode
TBA20-11EGWA	HIGH EFFICIENCY RED (GaAsP/GaP) GREEN (GaP)	WHITE DIFFUSED	4700	12000	Column Anode
TBC20-11EGWA			4700	16000	Column Cathode
TBA20-12EGWA	HIGH EFFICIENCY RED (GaAsP/GaP) GREEN (GaP)	WHITE DIFFUSED	4700	12000	Column Anode
TBC20-12EGWA			4700	16000	Column Cathode
TBA20-22EGWA	HIGH EFFICIENCY RED (GaAsP/GaP) GREEN (GaP)	WHITE DIFFUSED	4700	12000	Column Anode
TBC20-22EGWA			4700	16000	Column Cathode

Electrical / Optical Characteristics at T_A=25°C

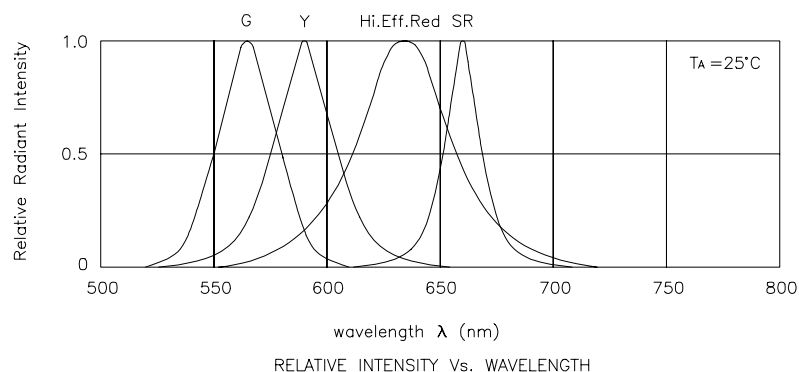
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Super Bright Red Yellow Green	627 660 590 565		nm	I _F =20mA
λ_D	Dominate Wavelength	High Efficiency Red Super Bright Red Yellow Green	625 640 588 568		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	High Efficiency Red Super Bright Red Yellow Green	45 20 35 30		nm	I _F =20mA
C	Capacitance	High Efficiency Red Super Bright Red Yellow Green	15 45 20 15		pF	V _F =0V;f=1MHz
V _F	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	I _F =20mA
I _R	Reverse Current	All		10	uA	V _R = 5V

Absolute Maximum Ratings at T_A=25°C

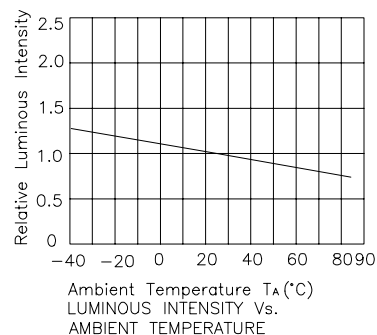
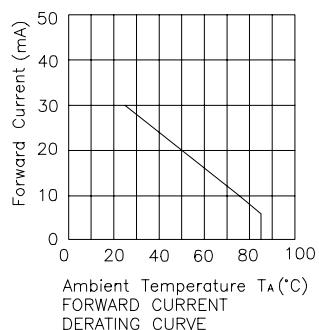
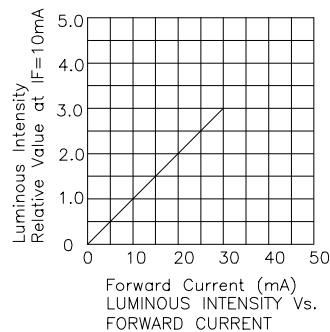
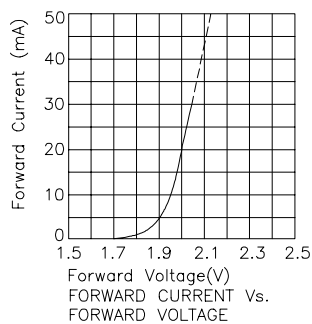
Parameter	High Efficiency Red	Super Bright Red	Yellow	Green	Units
Power dissipation	105	100	105	105	mW
DC Forward Current	30	30	30	25	mA
Peak Forward Current [1]	160	155	140	140	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

Notes:

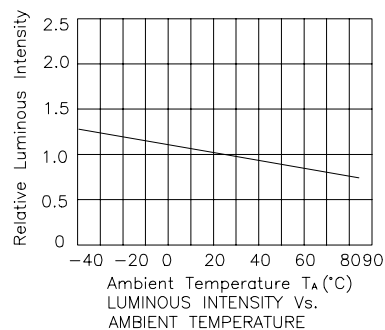
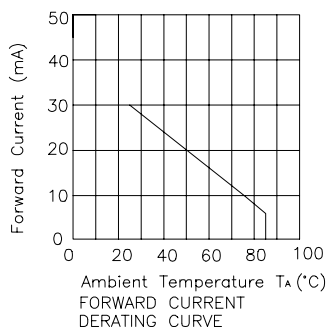
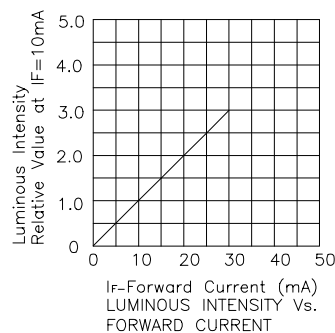
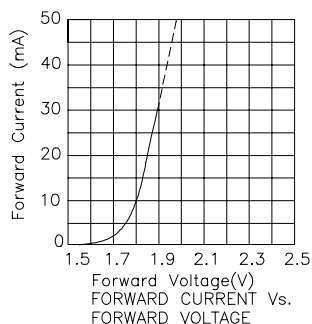
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.



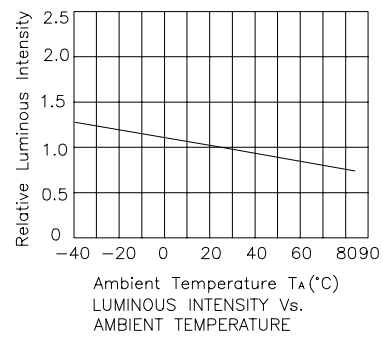
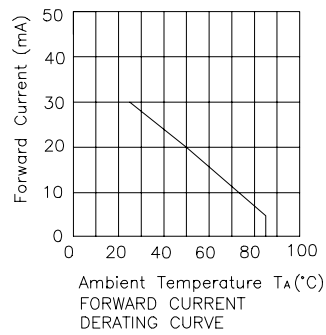
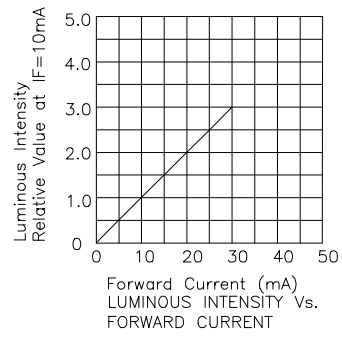
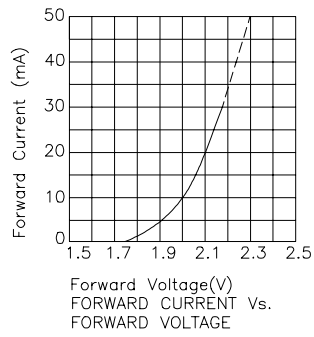
High Efficiency Red



Super Bright Red



Yellow



Green

