



TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.

Tel : (852) 2540 7288

http://www.toyo-led.com

Fax : (852) 2517 1797

E-mail : sales@toyo-led.com



P/N:D15881-N -UDR-0-W

Dot-Matrix Series

SPECIFICATION FOR CUSTOMER APPROVAL

P/N: D15881-N-UDR-0-W

DATE : 2011-9-7

PREPARED BY : Candy H

CONFIRMED BY : Andy Man

PLEASE CONFIRM & SIGN BACK THIS SHEET TO US

CUSTOMER: _____
(COMPANY CHOP)

APPROVAL BY: _____
(SIGNATURE)



TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.

Tel : (852) 2540 7288

http://www.toyo-led.com

Fax : (852) 2517 1797

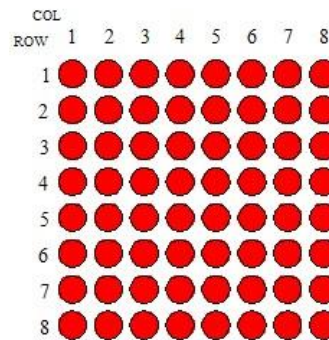
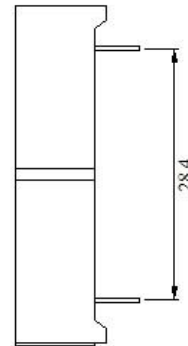
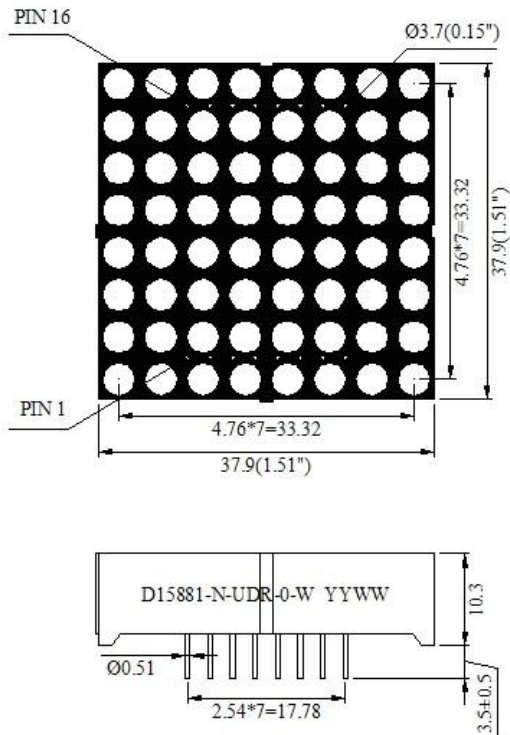
E-mail : sales@toyo-led.com



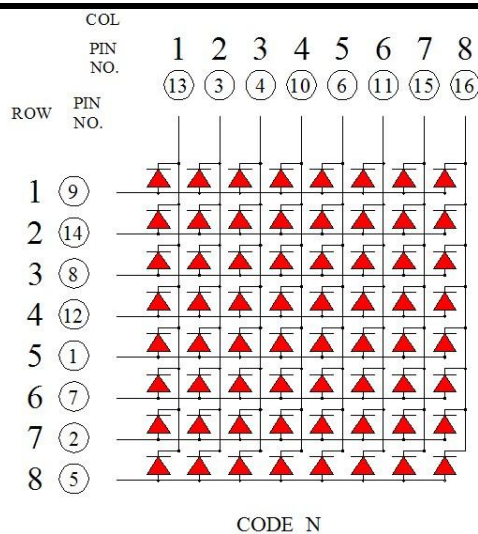
P/N:D15881-N -UDR-0-W

Dot-Matrix Series

PACKAGE DIMENSIONS



INTERNAL CIRCUIT DIAGRAM



NOTES:

1. All dimensions are in millimeter(inch);
2. Tolerance is $\pm 0.25\text{mm}(0.01\text{'})$ especially other specified;
3. Pin length, housing color, marking no & circuit diagram can be customized;
4. Specifications are subject to change without notice.



TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.

Tel : (852) 2540 7288

http://www.toyo-led.com

Fax : (852) 2517 1797

E-mail : sales@toyo-led.com



P/N:D15881-N -UDR-0-W

Dot-Matrix Series

CHIP

Chip Material: AlGaInP/GaAs Ultra Bright Dark Red LED Chip



ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

PARAMETER	SYMBOL	MAXIMUM RATING	UNIT
Power Dissipation	P _D	60	mW
Peak Forward Current (1/10 Duty Cycle, 0.1 Ms Pulse Width)	I _{PEAK}	80	mA
DC Forward Current	I _F	30	mA
Reverse Voltage	V _R	5	V
Operating Temperature Range	T _A	-40 °C to +85 °C	
Storage Temperature Range	T _{STG}	-40 °C to +85 °C	
Solder temperature 1/16 inch below seating plane for 3 seconds at 260 °C			

ELECTRICAL OPTICAL CHARACTER AND CURVES (Ta = 25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	LOCATION	TEST CONDITION
Forward Voltage	V _F	-	2.10	2.30	V	Per Dot	I _F =20mA
Luminous Intensity	I _v	20	25	30	mcd	Per Dot	I _F =20mA
Peak Emission Wavelength	λ _p	-	650	-	nm	Per Dot	I _F =20mA
Dominant Emission Wavelength	λ _d	639	639	640	nm	Per Dot	I _F =20mA
Spectral Line Half-Width	Δλ _{1/2}	-	20	-	nm	Per Dot	I _F =20mA
Capacitance	C	-	12-		pF	Per Dot	V _F =0V;f=1MHz
Reverse Current	I _R	-	-	10	uA	Per Dot	V _R = 5V

Note:

1. Luminous intensity tolerance is ±10%;
2. Dominant Emission Wavelength tolerance is ±5%.



P/N:D15881-N -UDR-0-W

Dot-Matrix Series

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVE

FIG. 1 Forward Current Vs. Forward Voltage

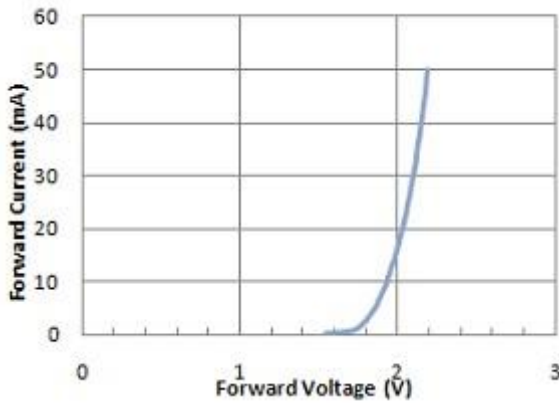


FIG. 2 Relative Intensity Vs. Forward Current

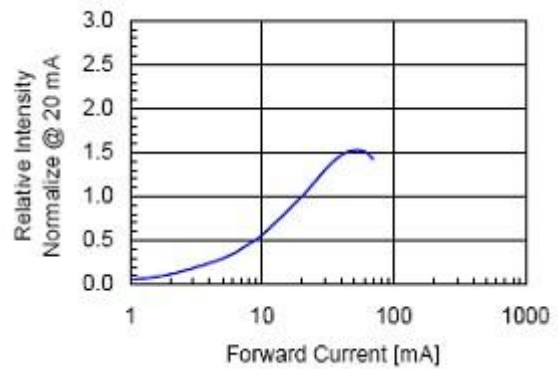


FIG. 3 Forward Voltage Vs. Temperature

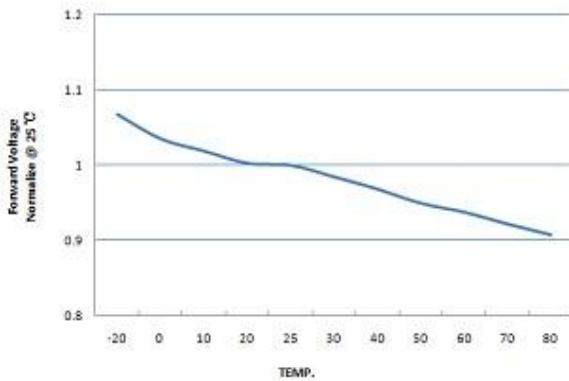


FIG. 4 Relative Intensity Vs. Temperature

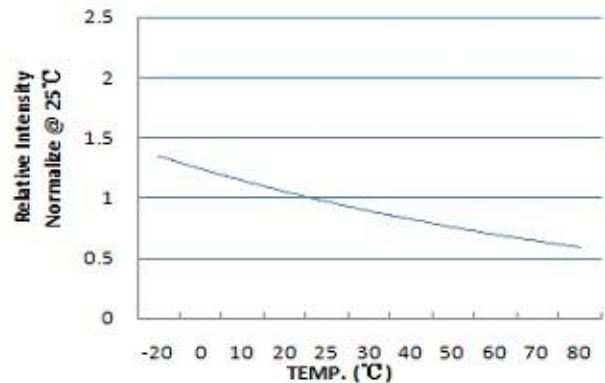


FIG. 5 Relative Intensity Vs. Wavelength

