

## 1.9 Common Anode 2.3 Inch (57.0mm)

PRODUCT DESCRIPTION
(1) 2.3 Inch (56.80mm) Digit Height
(2) Low current operation
(3) Excellent color and font characteristics
(4) Colors: White, blue, red, yellow and green
(5) Gray or black color background
(6) Common Anode
(7) RoHs Compliant Part



### Absolute Maximum Rating (Ta = 25°C)

PARAMETER	RED	AMBER	GREEN	BLUE	WHITE	UNITS
DC Forward Current Per Segment	30	30	25	30	20	mA
Peak Current Per Segment <sup>(1)</sup>	70	50	50	25	25	mA
Avg. Forward Current (Pulse Operation) Per Segment	30	30	25	25	25	mA
Derating Linear From 25°C Per Segment	0.3					mA/°C
Reverse Voltage <sup>(2)</sup>	3					V
Operating Temperature	-25 to +85					°C
Storage Temperature	-30 to +85					°C

(1) Pulse conditions of 1/10 duty and 0.1msec width, for long operating life, max. of 20mA recommended

(2) Reverse biasing of the dot matrix is not recommend, will cause damage to the leds

### Electro-optical Characteristics (Ta = 25°C)

PART NUMBER	DICE MATERIAL (COLOR)	PEAK WAVELENGTH (nm)	MAX. REVERSE CURRENT / SEGMENT (uA)	VF (V) TYP	VF (V) MAX.	LUMINOUS INTENSITY / SEGMENT AVERAGE (IF = 10mA)
LEDS23012TUR11	AllnGaP Red	630	10	6.8 (1)	8.0	75,000 ucd
LEDS23012TB11	InGaN Blue	468	10	13.25 (2)	14.0	90,000 ucd
LEDS23012YG11	AllnGaP Green	568	10	6.8 (1)	8.0	75,000 ucd
LEDS23012UY11	AllnGaP Amber	590	10	6.8 (1)	8.0	75,000 ucd
LEDS23012TW11	InGaN White	5,500K	10	13.25 (2)	14.0	90,000 ucd

(1) Cathode DP Vf = 1.8V ONLY uses one led chip for red, yellow and green color.

(2) Cathode DP Vf = 3.3V ONLY uses one led chip for blue and white color.

## DEVICE DIAGRAM

PIN NO.			
1	Common Anode DIG. 1	6	Cathode B
2	Cathode E	7	Cathode A
3	Cathode D	8	Cathode DP (1)
4	Cathode C	9	Cathode F
5	Common Anode DIG. 2	10	Cathode G

(1) Cathode DP Vf = 1.8V for red, yellow and green and Vf = 3.3V for blue.

