Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

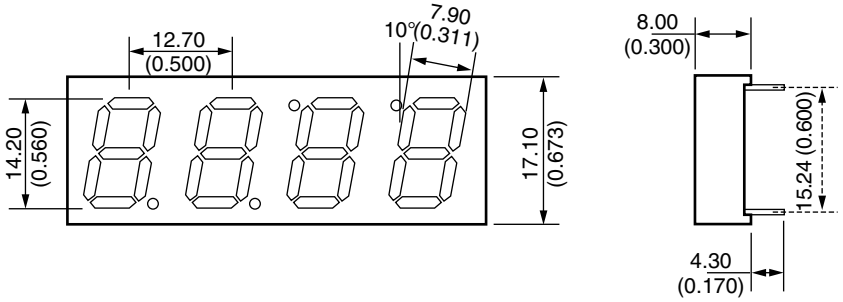
Contact us

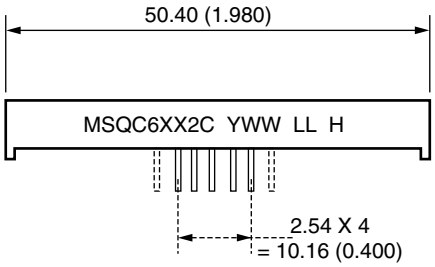
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

14mm (0.56 inch) Four Digit MULTIPLEX CLOCK STICK DISPLAY

Bright Red MSQC6112C, MSQC6142C
High Efficiency Red MSQC6912C, MSQC6942C
Green MSQC6412C, MSQC6442C

PACKAGE DIMENSIONS





Notes:

- Dimensions are in mm (inches)
- All Pins 0.5 (0.020) Diameter
- Tolerances are ±0.25mm (0.010") unless otherwise stated.

Features

- Bright Bold Segments
- Common Anode/Cathode
- Low Power Consumption
- Low Current Capability
- High Performance
- High Reliability

Applications

- Appliances
- Automotive
- Instrumentation
- Process Control

MODELS AVAILABLE

Part Number	Colour	Description
MSQC6112C	Bright Red	Clock Display, Common Anode, gray face, neutral segments
MSQC6142C	Bright Red	Clock Display, Common Cathode, gray face, neutral segments
MSQC6412C	Green	Clock Display, Common Anode, gray face, green segments
MSQC6442C	Green	Clock Display, Common Cathode, gray face, green segments
MSQC6912C	H.E.R	Clock Display, Common Anode, gray face, neutral segements
MSQC6942C	H.E.R.	Clock Display, Common Cathode, gray face, neutral segments

(For other colour options, contact your local area Sales Manager)

FAIRCHILD
SEMICONDUCTOR®

14mm (0.56 inch) Four Digit MULTIPLEX CLOCK STICK DISPLAY

BRIGHT RED MSQC6112C, MSQC6142C
HIGH EFFICIENCY RED MSQC6912C, MSQC6942C
GREEN MSQC6412C, MSQC6442C

ABSOLUTE MAXIMUM RATINGS[1] (T_A = 25°C, unless otherwise specified)

Part Number Parameter	MSQC6112C MSQC6142C	MSQC6412C MSQC6442C	MSQC6912C MSQC6942C	Units
Continuous Forward Current (each segment)	15	25	25	mA
Peak Forward Current (F = 10KHz, D/F = 1/10)	60	90	90	mA
Power Dissipation (P_D)	40	70	70	mW
***Derate Linearly from 25°C**	0.17	0.33	0.33	mW
Reverse Voltage per Die	5 Volts			
Operating and Storage Temperature Range	-40°C to +85°C			
Lead soldering time (1/16 inch from standoffs)	5 seconds @ 230°C			

ELECTRO-OPTICAL CHARACTERISTICS[1] (T_A = 25°C, unless otherwise specified)

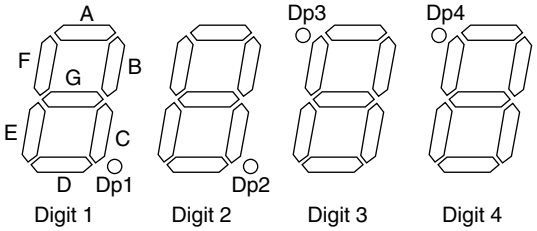
Part Number Parameter	MSQC6112C MSQC6142C	MSQC6412C MSQC6442C	MSQC6912C MSQC6912C	Units	Test Condition
Luminous intensity[2] (I_V)					
Minimum (Standard Current)	300	800	800	µcd	I_F = 10mA
Typical (Standard Current)	700	2400	2000	µcd	I_F = 10mA
Minimum (Low Current)	Not Available				
Typical (Low Current)	Not Available				
Forward Voltage (V_F)					
Typical (Standard Current)	2.10	2.10	2.00	V	I_F = 20mA
Maximum (Standard Current)	2.80	2.80	2.80	V	I_F = 20mA
Typical (Low Current)	Not Available				
Maximum (Low Current)	Not Available				
Peak Wavelength	695	570	635	nm	I_F = 20mA
Dominant Wavelength	Not Available				
Spectral Line 1/2 Width	90	30	45	nm	I_F = 10mA
Reverse B[3]. Voltage (V_R)	5	5	5	V	I_R = 100uA

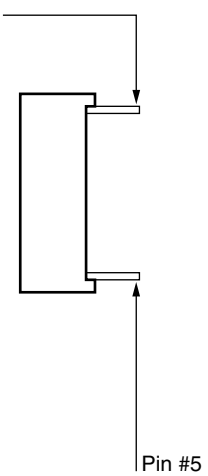
NOTES:
(1) Data per individual LED element
(2) Luminous intensity (ucd) = average light output per segment
(3) B = breakdown

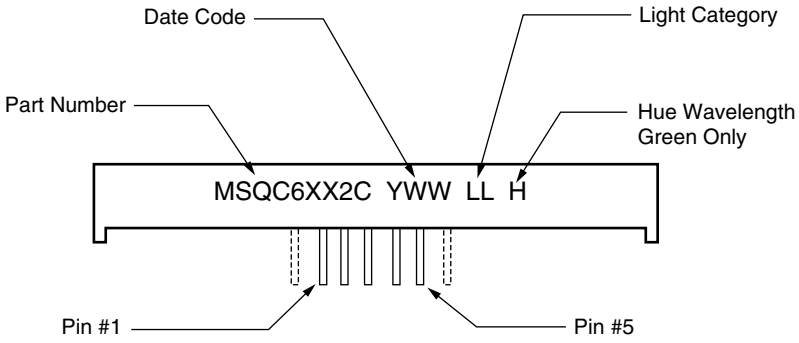
14mm (0.56 inch) Four Digit MULTIPLEX CLOCK STICK DISPLAY

BRIGHT RED MSQC6112C, MSQC6142C
HIGH EFFICIENCY RED MSQC6912C, MSQC6942C
GREEN MSQC6412C, MSQC6442C

PIN ORIENTATION, SEGMENT IDENTIFICATION, AND PRODUCT MARKING



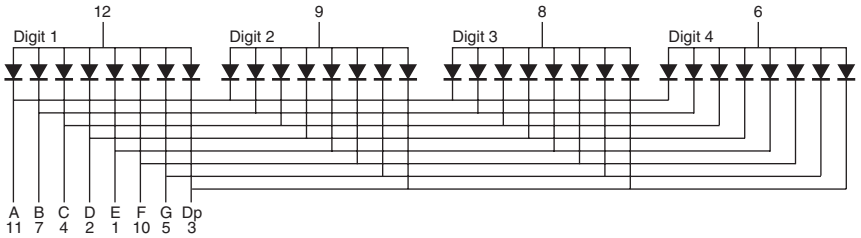




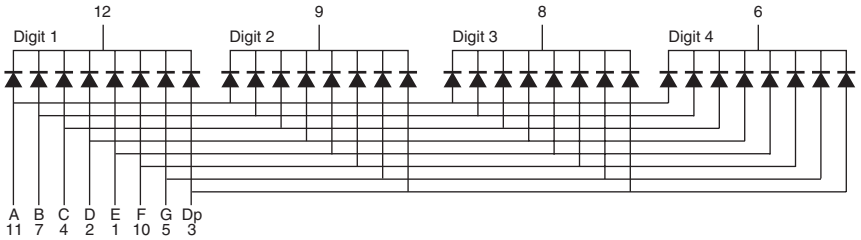
Note Five pins on one side Seven Pins on the other

SCHEMATICS

MSQC6X10C
(Common Anode)



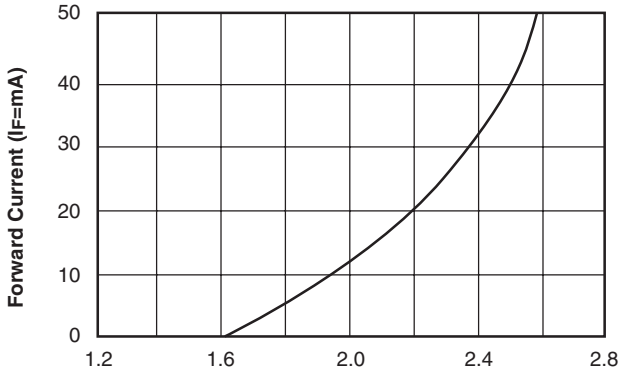
MSQC6X40C
(Common Cathode)



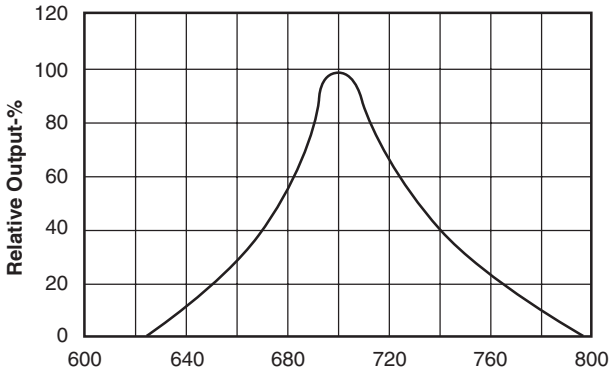
14mm (0.56 inch) Four Digit MULTIPLEX CLOCK STICK DISPLAY

BRIGHT RED MSQC6112C, MSQC6142C
HIGH EFFICIENCY RED MSQC6912C, MSQC6942C
GREEN MSQC6412C, MSQC6442C

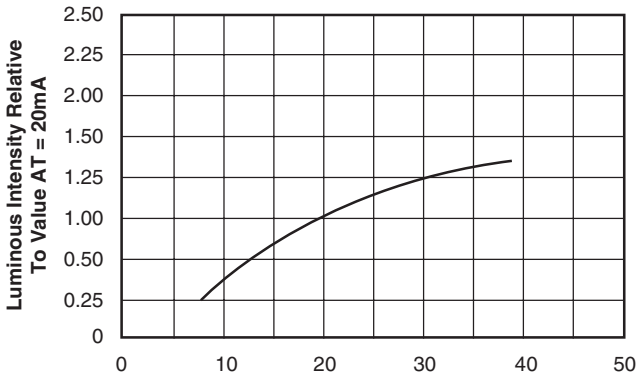
GRAPHICAL DATA Bright Red (T_A = 25°C, unless otherwise specified)



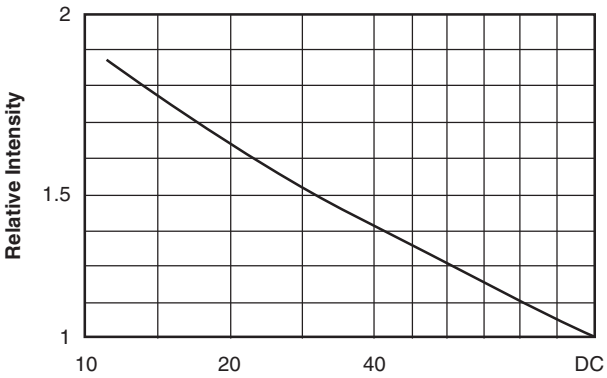
Forward Voltage (V_F) - Volts
Fig. 1 Forward Current vs. Forward Voltage



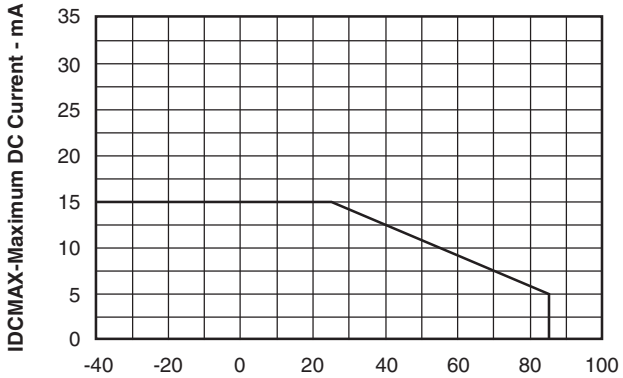
Wavelength (λ)-nm
Fig. 2 Spectral Response



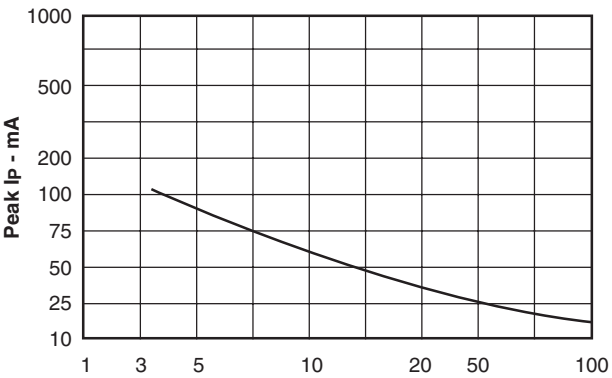
I_F - Forward Current - mA
Fig. 3 Relative Luminous Intensity vs. Forward Current



Duty Cycle % Per Segment
(Average I_F = 10mA)
Fig. 5 Luminous Intensity vs. Duty Cycle



T_A AMBIENT TEMPERATURE °C
Fig. 4 Maximum Allowable DC Current per Segment vs.
a Function of Ambient Temperature



Duty Cycle %
Fig. 6 Max Peak Current vs. Duty Cycle %
(Refresh Rate f=1 KHz)

14mm (0.56 inch) Four Digit MULTIPLEX CLOCK STICK DISPLAY

BRIGHT RED MSQC6112C, MSQC6142C
HIGH EFFICIENCY RED MSQC6912C, MSQC6942C
GREEN MSQC6412C, MSQC6442C

GRAPHICAL DATA Green (T_A = 25°C, unless otherwise specified)

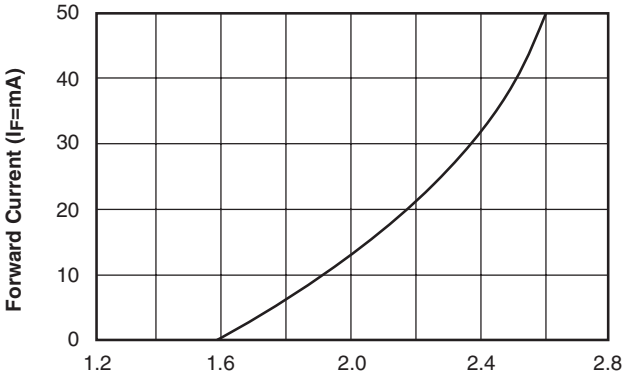


Fig. 1 Forward Current vs. Forward Voltage

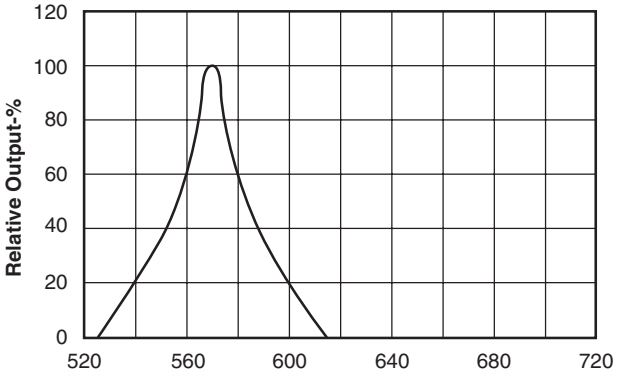


Fig. 2 Spectral Response

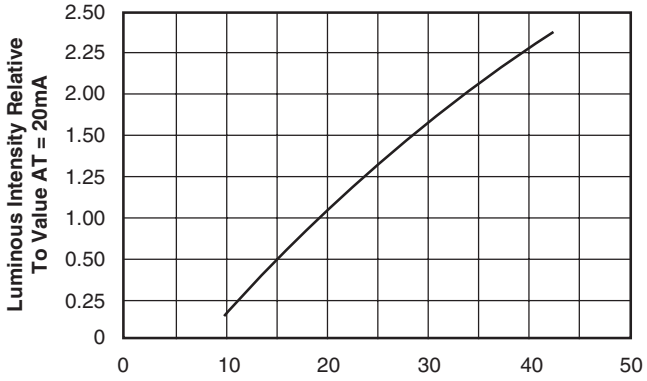


Fig. 3 Relative Luminous Intensity vs. Forward Current

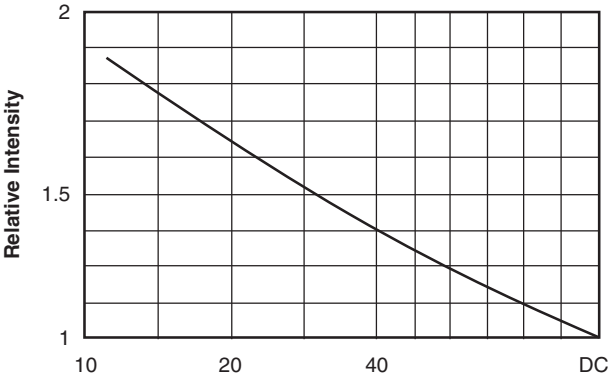


Fig. 5 Luminous Intensity vs. Duty Cycle

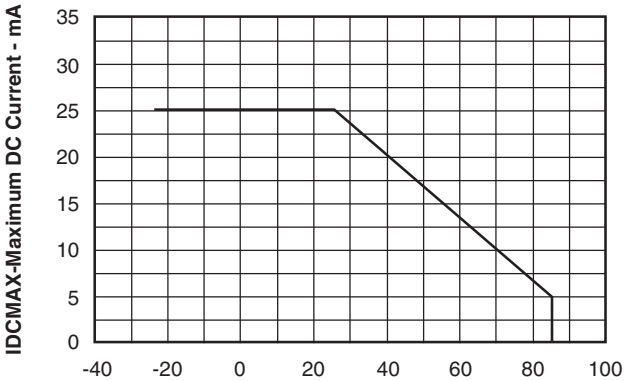


Fig. 4 Maximum Allowable DC Current per Segment vs. a Function of Ambient Temperature

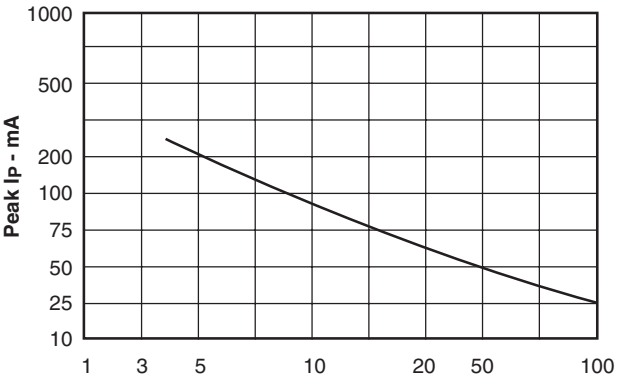
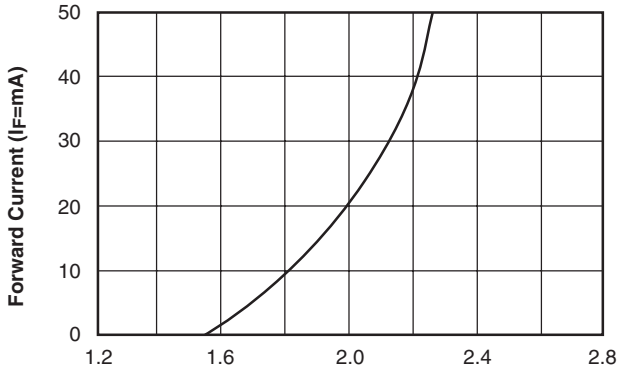


Fig. 6 Max Peak Current vs. Duty Cycle %
(Refresh Rate f=1 KHz)

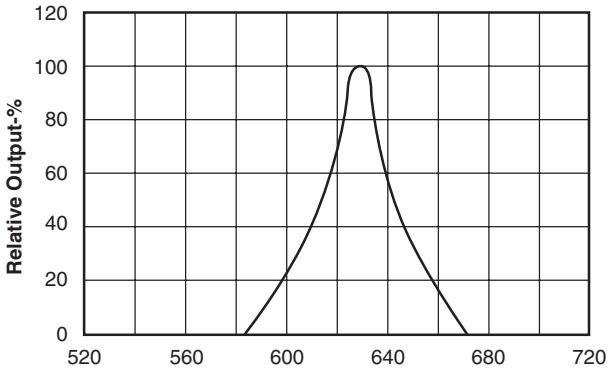
14mm (0.56 inch) Four Digit MULTIPLEX CLOCK STICK DISPLAY

BRIGHT RED MSQC6112C, MSQC6142C
HIGH EFFICIENCY RED MSQC6912C, MSQC6942C
GREEN MSQC6412C, MSQC6442C

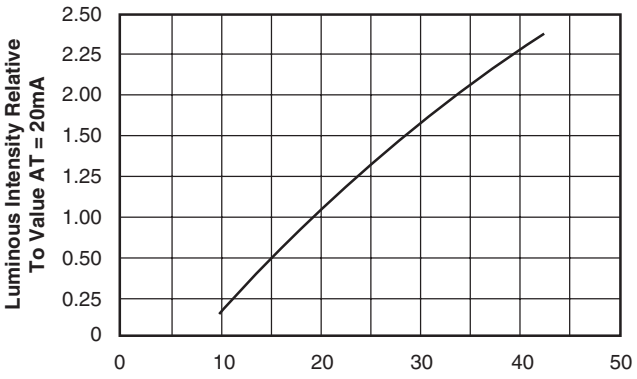
GRAPHICAL DATA High Efficiency Red (T_A = 25°C, unless otherwise specified)



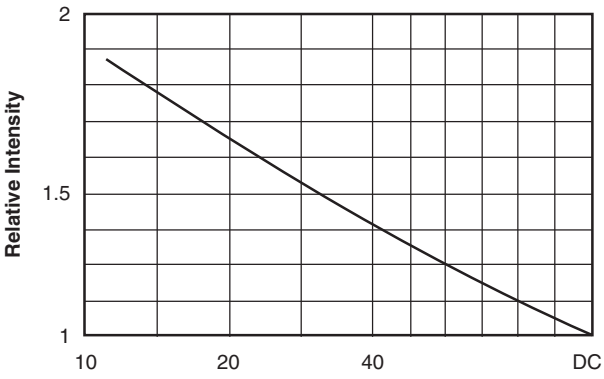
Forward Voltage (V_F) - Volts
Fig. 1 Forward Current vs. Forward Voltage



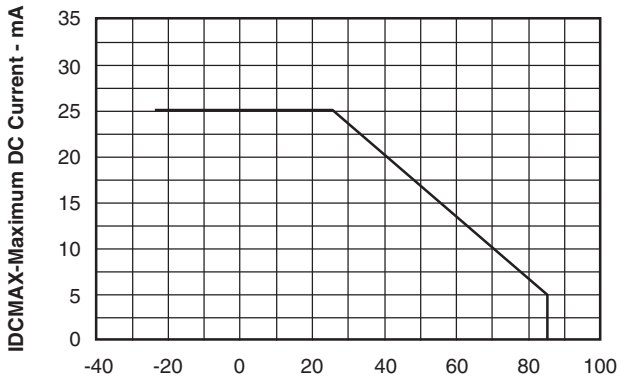
Wavelength (λ)-nm
Fig. 2 Spectral Response



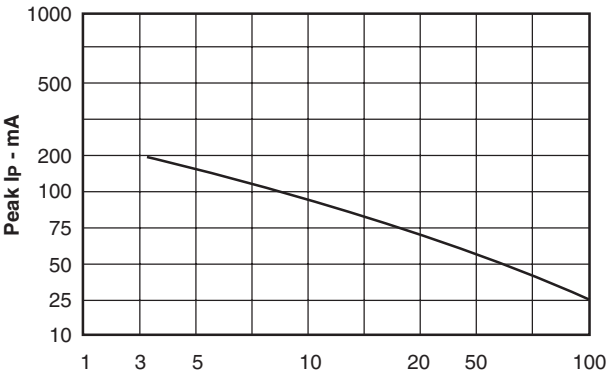
I_F - Forward Current - mA
Fig. 3 Relative Luminous Intensity vs. Forward Current



Duty Cycle % Per Segment
(Average I_F = 10mA)
Fig. 5 Luminous Intensity vs. Duty Cycle



T_A AMBIENT TEMPERATURE °C
Fig. 4 Maximum Allowable DC Current per Segment vs.
a Function of Ambient Temperature



Duty Cycle %
Fig. 6 Max Peak Current vs. Duty Cycle %
(Refresh Rate f=1 KHz)

FAIRCHILD
SEMICONDUCTOR®

14mm (0.56 inch) Four Digit MULTIPLEX CLOCK STICK DISPLAY

BRIGHT RED MSQC6112C, MSQC6142C
HIGH EFFICIENCY RED MSQC6912C, MSQC6942C
GREEN MSQC6412C, MSQC6442C