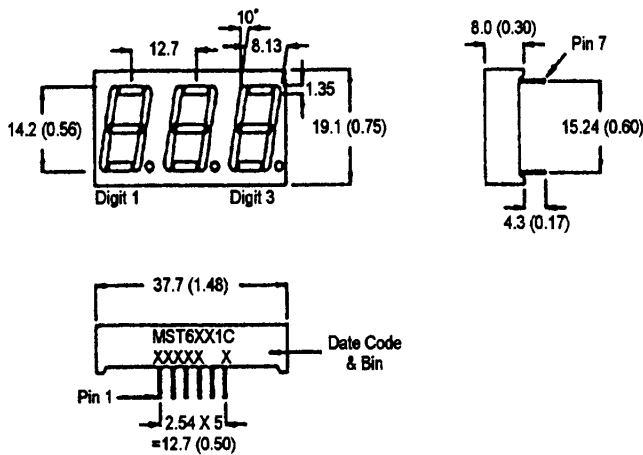




**THE DATASHEET OF
MST6441C**



BRIGHT RED MST6111C, MST6141C
GREEN MST6411C, MST6441C
HIGH EFF. RED MST6911C, MST6941C

PACKAGE DIMENSIONS

NOTES: Dimensions are in mm (inch).
 All pins are 0.5 (0.02) diameter
 Tolerances are ± 0.25 (0.1) unless otherwise noted.

FEATURES

Easy to read digit
 Common anode or cathode
 Low power consumption
 Highly visible bold segments
 High brightness with high contrast
 White segments on a grey face for
MST64X1C and MST61X1C.
 Red segments and red face for
MST69X1C
 Directly compatible with integrated
 circuits
 Rugged plastic/epoxy construction

APPLICATIONS

Digital readout displays
 Instrument panels

MODEL NUMBERS

<u>Part number</u>	<u>Color</u>	<u>Description</u>
MST6111C	Bright Red	Common Anode; right hand decimal
MST6141C	Bright Red	Common Cathode; right hand decimal
MST6411C	Green	Common Anode; right hand decimal
MST6441C	Green	Common Cathode; right hand decimal
MST6911C	High Efficiency Red	Common Anode; right hand decimal
MST6941C	High Efficiency Red	Common Cathode; right hand decimal

(For other color options, contact your local area Sales Office)

ABSOLUTE MAXIMUM RATING ($T_A=25^\circ\text{C}$ unless otherwise specified)

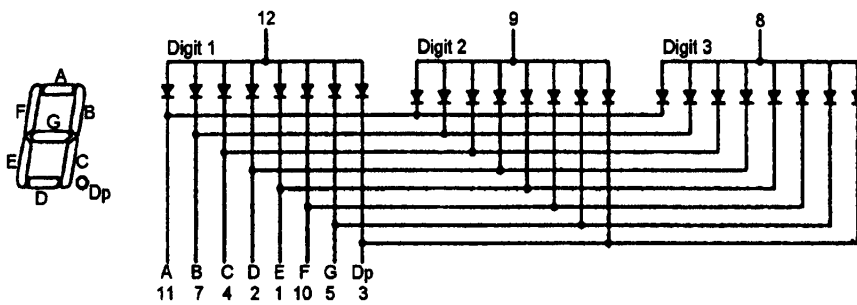
	B.Red MST 6111C 6141C	Green MST 6411C 6441C	High Eff. Red MST 6911C 6941C	Unit
Part number				
Continuous forward current (I_f) Per Segment	15	30	30	mA
Peak forward current per die (I_p) (at $f = 10.0$ KHz, Duty factor = 1/10)	60	90	90	mA
Power dissipation (P_D)	40*	70*	70*	mW
*Derate Linearly from 25°C	0.17	0.33	0.33	mW/ $^\circ\text{C}$
Reverse voltage per dice.....				5V
Operating and Storage temperature range.....				-25°C to $+85^\circ\text{C}$
Lead soldering time (at 1/16 inch from the bottom of lamp).....				5 seconds @ 230°C

ELECTRO - OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

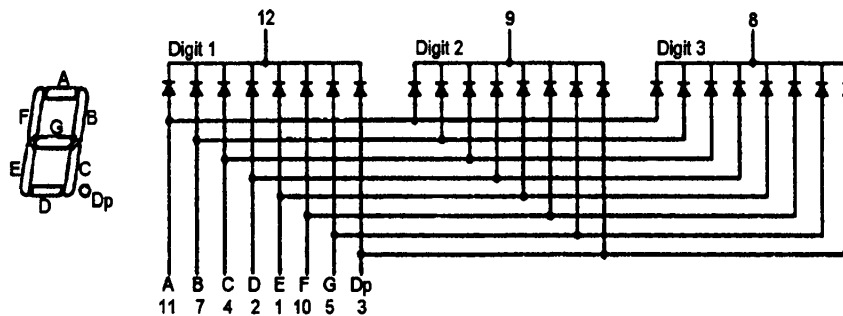
	Bright Red MST 6111C 6141C	Green MST 6411C 6441C	High Eff. Red MST 6911C 6941C	Test Condition
<u>Part number</u>				
Luminous intensity (ucd)				
minimum	300	800	900	$I_f = 20\text{mA}$
typical	700	2200	2200	$I_f = 20\text{mA}$
Forward voltage (V_f)				
typical	2.1	2.1	2.0	$I_f = 20\text{mA}$
maximum	2.6	2.8	2.8	
Peak wavelength (nm)	697	570	635	$I_f = 20\text{mA}$
Spectral line half width (nm)	90	30	45	$I_f = 20\text{mA}$
Reverse breakdown voltage (V_R)	5	5	5	$I_r = 100\mu\text{A}$

PINOUT

MST6X11C - Common Anode



MST6X41C - Common Cathode



GRAPHICAL DATA - Bright Red ($T_A = 25^\circ\text{C}$ unless otherwise specified)

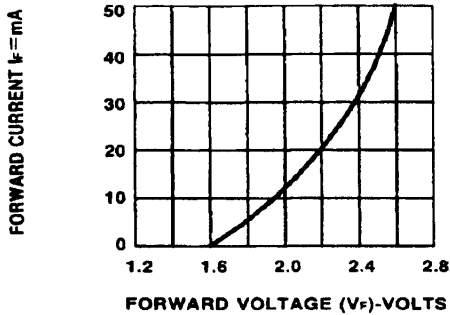


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

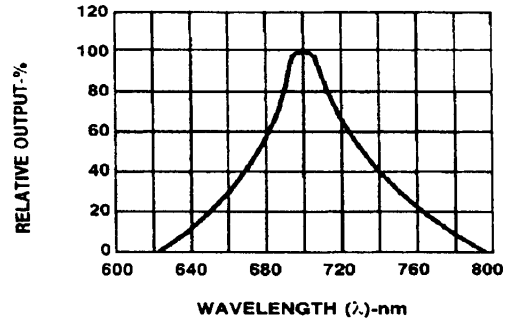


Fig.2 SPECTRAL RESPONSE

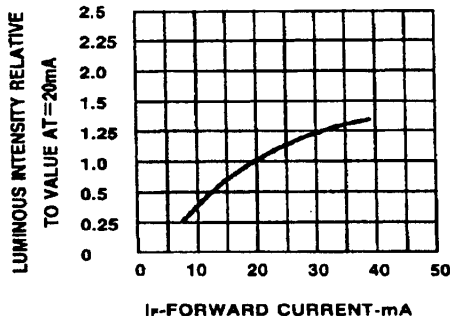


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

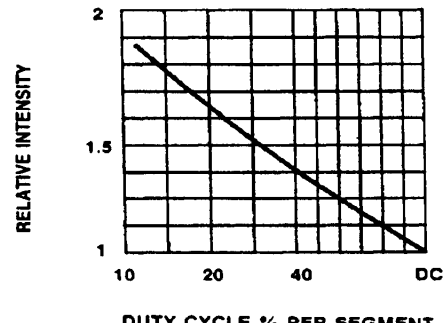


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

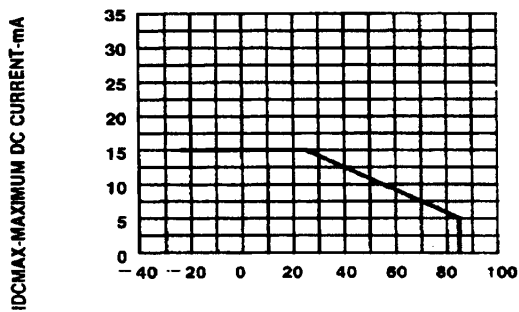


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE.

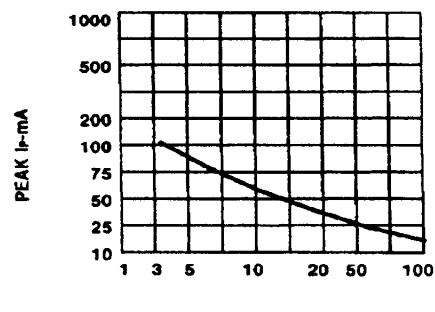


Fig. 6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE $f=1\text{ KHz}$)

GRAPHICAL DATA - Green ($T_A = 25^\circ\text{C}$ unless otherwise specified)

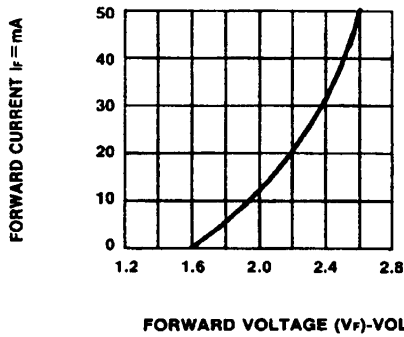


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

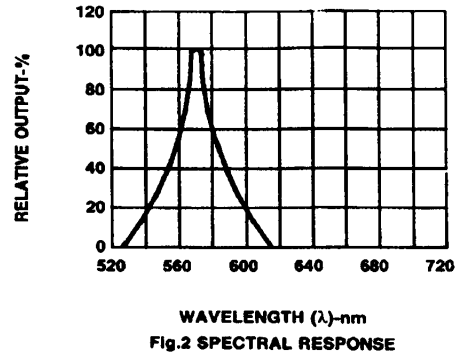


Fig.2 SPECTRAL RESPONSE

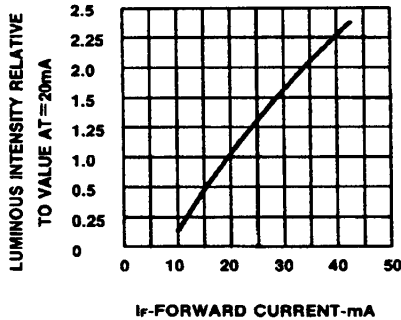


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

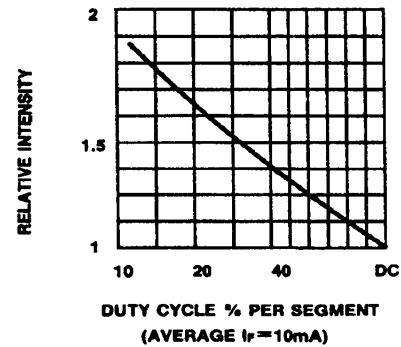


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

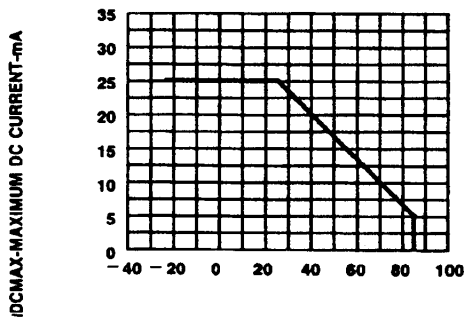


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT CS. A FUNCTION OF AMBIENT TEMPERATURE.

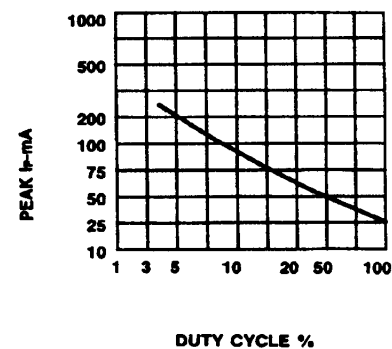


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE $f = 1 \text{ KHz}$)

GRAPHICAL DATA - High Efficiency Red ($T_A = 25^\circ\text{C}$ unless otherwise specified)

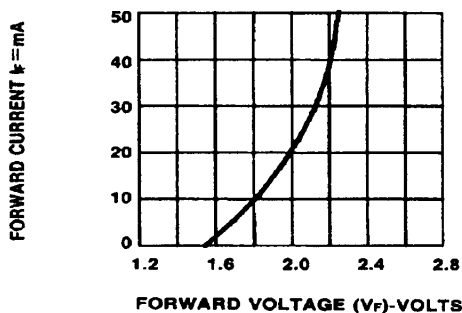


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

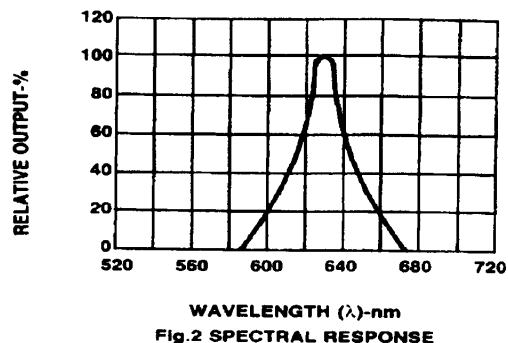


Fig.2 SPECTRAL RESPONSE

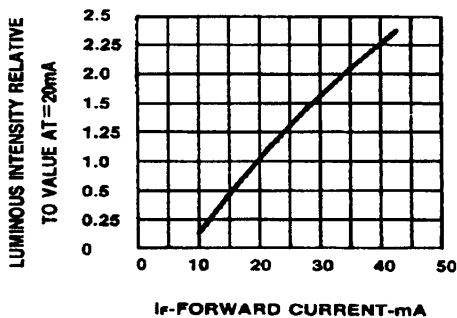


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

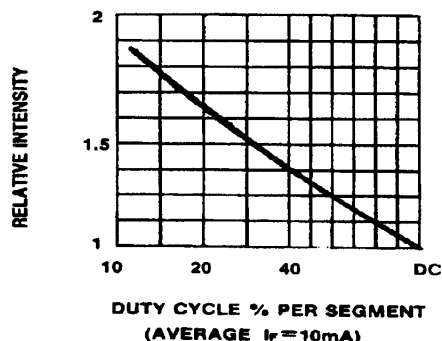


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

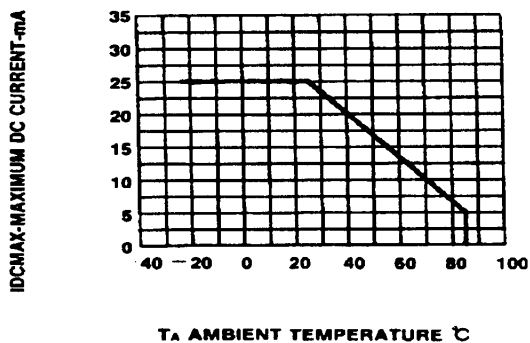


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE.

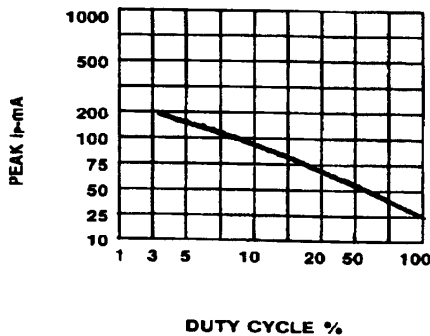


Fig. 6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE $f=1\text{ KHz}$)

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