

# TLR2218, TLR4213, TLR2168, TLR4163

## RED COLOR 4 DIGITS LED DISPLAY

- Clock display for multiplex drive operation and available both polarity common anode or common cathode.
- 15 mm (0.6") character high, each segment represents diffused and uniform display with milk white filter color.
- Practical brightness are obtained at about 40 mA with 1/6 of duty ratio.
- Arrow edge shape of each segment represents not mosaic but look like Arabic numerals.
- Selectable both type 12 or 24 hours of display.

### TYPE NO. vs. DISPLAY FONT

COMMON ANODE	COMMON CATHODE	FULLY DISPLAY FONT
TLR2218	TLR2168	: 10 : 00 .
TLR4213	TLR4163	: 00 : 00 .

Refer to page 263 for the figure.

### MAXIMUM RATINGS (Ta = 25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Pulse Forward Current (Note 1)	$I_F(\text{Pulse})/\text{Seg}$	60	mA
Reverse Voltage	$V_R$	3	V
Storage Temperature Range	$T_{stg}$	-20~75	°C
Operating Temperature Range	$T_{opr}$	-20~60	°C
Soldering Temperature (Note 2)	$T_{solder}$	260	°C

Note 1: Duty ratio = 1/6  
 Note 2: Within 3 second at 2 mm from the reflector edge.

### ELECTRICAL-OPTICAL CHARACTERISTICS (Ta = 25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_F$	$I_F=10\text{mA}$	1.9	2.4	3.4	V
Reverse Current	$I_R$	$V_R=3\text{V}$	-	-	5	µA
Luminous Intensity/Seg.	$I_V/\text{Seg}$	Duty Ratio=1/6 $I_F=10\text{mA}$	0.1	0.15	-	mcd
Luminous Intensity Matching Ratio	$I_V-M$	Duty Ratio=1/6 $I_F=10\text{mA}$	-	-	2.5	-
Peak Emission Wave Length	$\lambda_P$	$I_F=10\text{mA}$	-	700	-	nm
Spectral Half Line Width	$\Delta\lambda$	$I_F=10\text{mA}$	-	100	-	nm

