

# TLR113AQ, TLR114AQ, TLR116AQ, TLR120AQ

## GaP RED LIGHT EMISSION

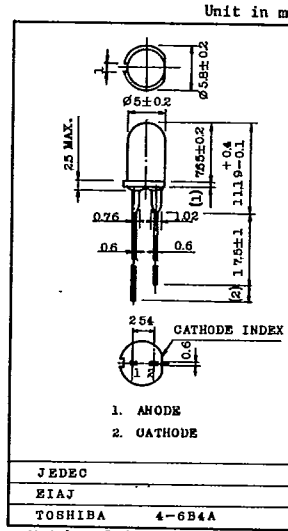
PANEL CIRCUIT INDICATOR

**FEATURES:**

- All Plastic Mold Type
  - TLR113AQ: Red Transparent Lens
  - TLR114AQ: Red Lusterless Lens
  - TLR116AQ: Milky Lusterless Lens
  - TLR120AQ: Colorless Transparent Lens
- Low Drive Current, High Intensity Red Light Emission  
Recommended Forward Current:  $I_F=10 \sim 15\text{mA(DC)}$
- All Plastic Molded Lens, Provides an Excellent ON-OFF Contrast Ratio.
- Fast Response Time, Capable of Pulse Operation.
- Wire Wrappable Leads.

**MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Forward Current (DC)	$I_F$	20	mA
Reverse Voltage	$V_R$	4	V
Power Dissipation	$P_D$	56	mW
Operating Temperature Range	$T_{opr}$	$-20 \sim 75$	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	$-30 \sim 100$	$^\circ\text{C}$



**ELECTRICAL-OPTICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )**

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_F$	$I_F=20\text{mA}$	-	2.1	2.8	V
Reverse Current	$I_R$	$V_R=4\text{V}$	-	-	5	$\mu\text{A}$
Luminous Intensity	$I_V$	$I_F=15\text{mA}$	0.6	3.5	-	mcd
			0.4	1.5	-	
			0.5	1.8	-	
			1.0	4.0	-	
Peak Emission Wave Length	$\lambda_p$	$I_F=15\text{mA}$	-	700	-	nm
Spectral Line Half Width	$\Delta\lambda$	$I_F=15\text{mA}$	-	100	-	nm

