

SUPER BRIGHT LED LAMP

ROUND SHAPE TYPE
 $\phi 5$ (T-1 3/4)

5764X/5774X SERIES

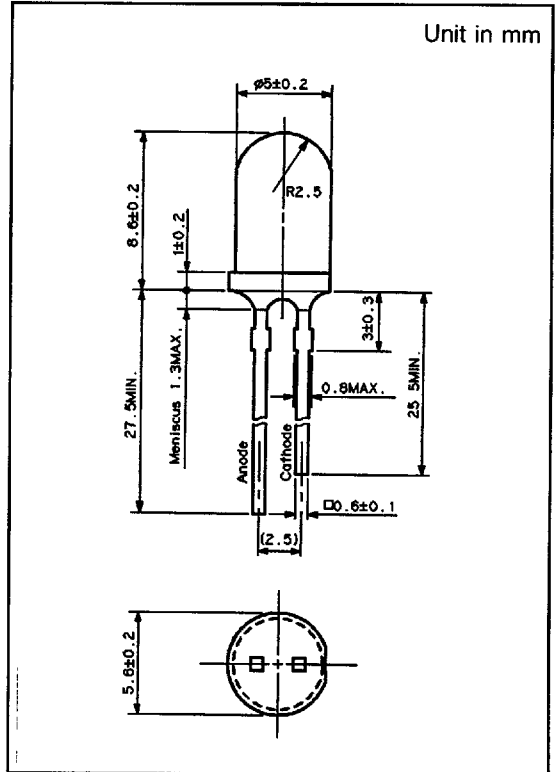
FEATURES

- AVAILABLE IN 4 COLORS; RED, GREEN, YELLOW AND ORANGE
- ALL RESIN MOLDED PACKAGE IN PASTEL COLORS
- AVAILABLE IN 2 TYPES; CLEAR AND DIFFUSED
- LOW CURRENT TYPE
- LOW CURRENT DRIVE
- LARGE ALLOWABLE CURRENT CAPACITY, EXCELLENT FOR PULSE DRIVE
- HIGH RELIABILITY, LONG LIFE

APPLICATION

- LIGHT SOURCE FOR TELEPHONES
- LIGHT SOURCE FOR OA EQUIPMENT
- LIGHT SOURCE FOR AV EQUIPMENT
- LIGHT SOURCE FOR ILLUMINATED SWITCH

Package Dimension



Absolute Maximum Ratings

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

Parameter	Symbol	Red		Green		Yellow		Orange	Units
		MPR	MVR	MBG	MPG	MPY	MAY	MAA	
Forward Current	I_F	30	30	25	25	30	30	25	mA
Peak Forward Current	I_{FM}	75	75	60	60	75	75	60	mA
Reverse Voltage	V_R	4		4		4		4	V
Power Dissipation	P_d	75	75	70	70	85	85	70	mW
Operating Temperature	T_{opr}	$-30 \sim +85$		$-30 \sim +85$		$-30 \sim +85$		$-30 \sim +85$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-30 \sim +100$		$-30 \sim +100$		$-30 \sim +100$		$-30 \sim +100$	$^\circ\text{C}$

* The current derating for operation above 25°C is $0.67\text{mA}/^\circ\text{C}$ for BR/BG/PG/PY/AY/AA, $0.40\text{mA}/^\circ\text{C}$ for MVR/MPR/MPY/MAY and $0.33\text{mA}/^\circ\text{C}$ for VR/PR/MBG/MPG/MAA.

Electro-Optical Characteristics

(Ta=25°C)

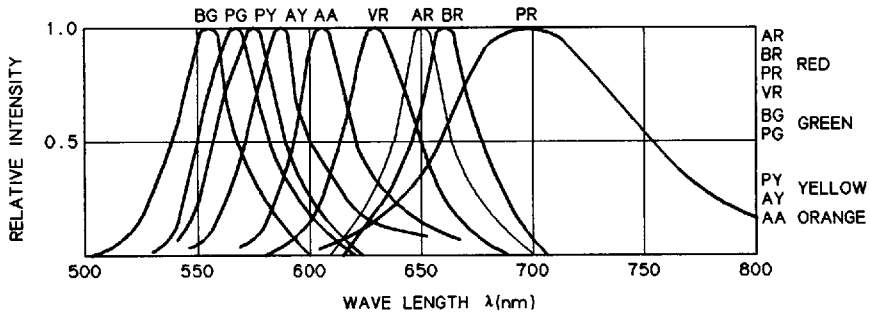
Type No.	Chip		Lens *	Iv(mcd)		at If (mA)	Peak Wave Length λp(nm)	Spectral Line Half Width Δλ(nm)	Vf(V)		at If (mA)	at VR4V IR(μA)	Capacitance Co(pF)
	Material	Emitted Color		Min.	Typ.				Typ.	Max.			
MPR5764X (74X)	GaP	Red	P.C (P.D)	5 (3)	10 (6)	10	700	100	2.1	2.8	10	20	40
MVR5764X (74X)	GaAsP/GaP	Red	P.C (P.D)	50 (30)	100 (60)	20	630	30	2.0	2.8	20	20	10
MBG5764X (74X)	GaP	Pure Green	P.C (P.D)	20 (8)	40 (16)	20	555	30	2.1	2.8	20	20	25
MPG5764X (74X)	GaP	Green	P.C (P.D)	50 (20)	100 (40)	20	560	30	2.1	2.8	20	20	25
MPY5764X (74X)	GaP	Yellow	P.C (P.D)	60 (30)	120 (60)	20	570	30	2.1	2.8	20	20	20
MAY5764X (74X)	GaAsP/GaP	Yellow	P.C (P.D)	40 (20)	80 (40)	20	580	30	2.2	2.8	20	20	10
MAA5764X (74X)	GaAsP/GaP	Orange	P.C (P.D)	50 (25)	100 (50)	20	605	30	2.2	2.8	20	20	10

* W.C = Water Clear
 W.D = Water Diffused
 C.C = Color Clear

C.D = Color Diffused
 W.S.D = White Surface Diffused
 C.S.D = Color Surface Diffused

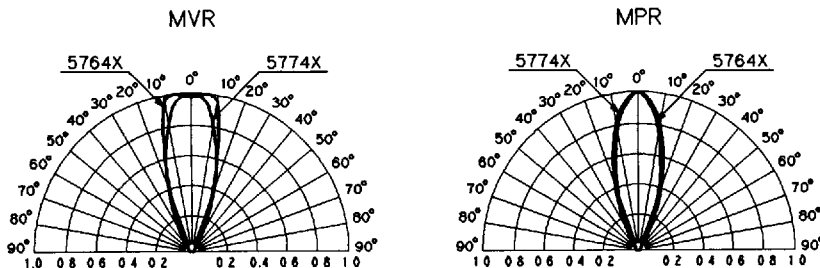
P.C = Pastel Color
 P.D = Pastel Diffused
 P.S.D = Pastel Surface Diffused

■ SPECTRAL DISTRIBUTION

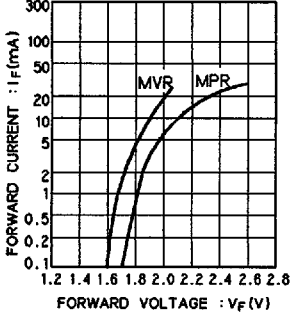


LED LAMP

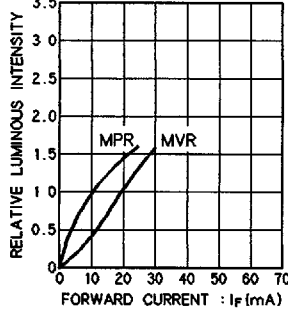
■ SPATIAL DISTRIBUTION



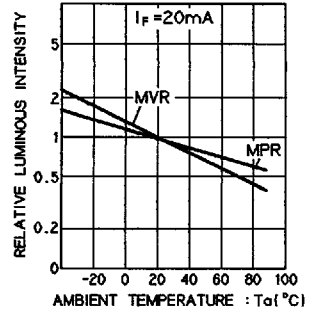
■ FORWARD CURRENT vs. FORWARD VOLTAGE (Ta=25°C)



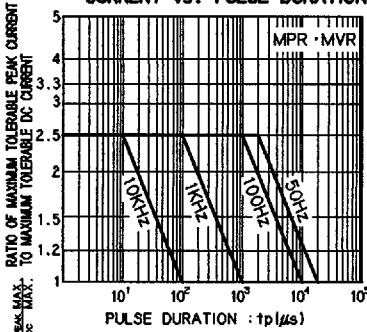
■ RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT (Ta=25°C)



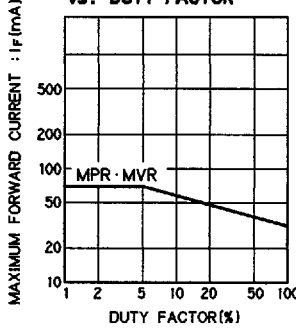
■ RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE



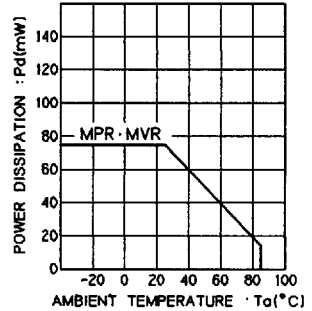
■ MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



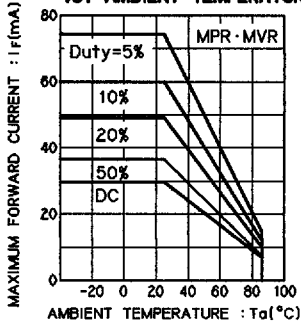
■ MAXIMUM FORWARD CURRENT vs. DUTY FACTOR



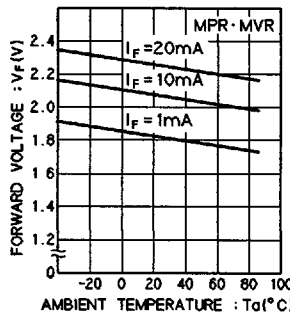
■ POWER DISSIPATION vs. AMBIENT TEMPERATURE



■ MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE



■ FORWARD VOLTAGE vs. AMBIENT TEMPERATURE

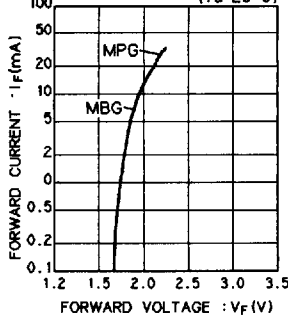


■ GREEN

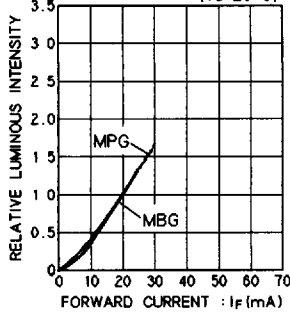
55E D

■ 4678158 0001516 310 ■ IIST

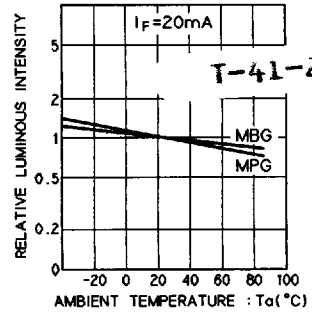
■ FORWARD CURRENT vs. FORWARD VOLTAGE (Ta=25°C)



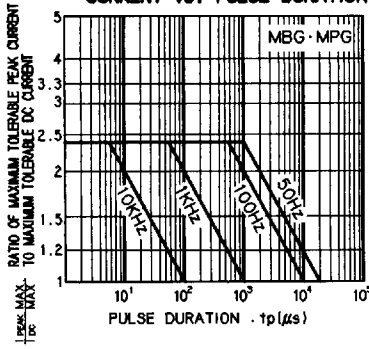
■ RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT (Ta=25°C)



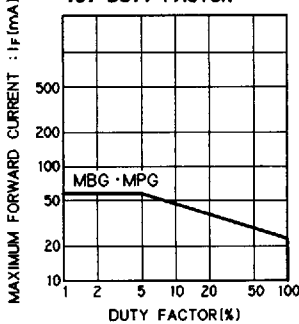
■ RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE (If=20mA)



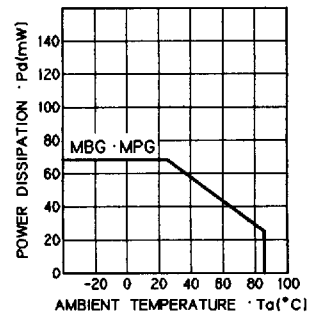
■ MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



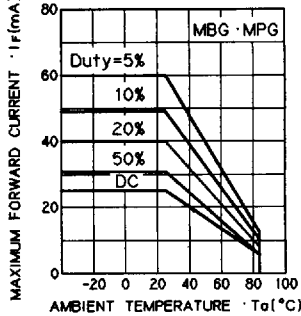
■ MAXIMUM FORWARD CURRENT vs. DUTY FACTOR



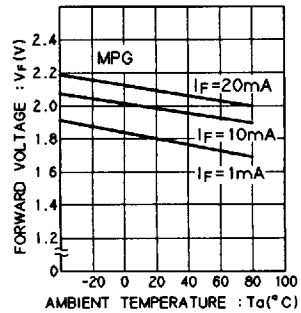
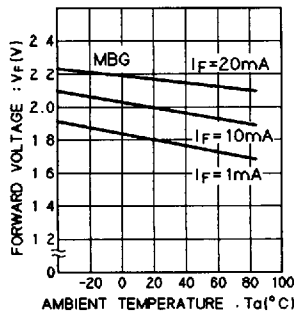
■ POWER DISSIPATION vs. AMBIENT TEMPERATURE



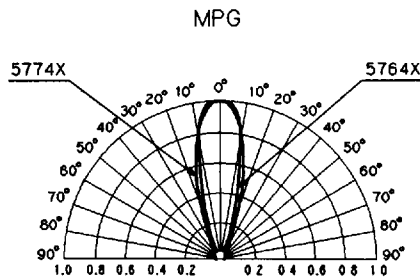
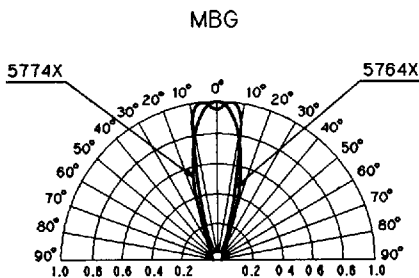
■ MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE



■ FORWARD VOLTAGE vs. AMBIENT TEMPERATURE

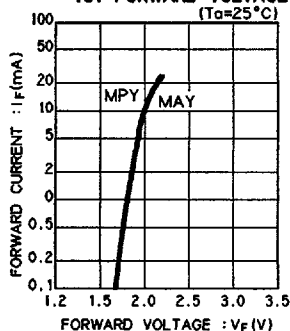


■ SPATIAL DISTRIBUTION

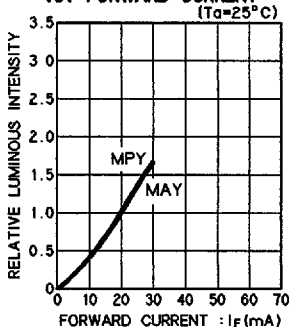


LED LAMP

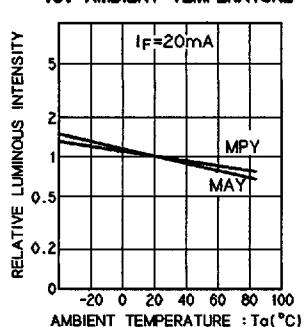
FORWARD CURRENT vs. FORWARD VOLTAGE (Ta=25°C)



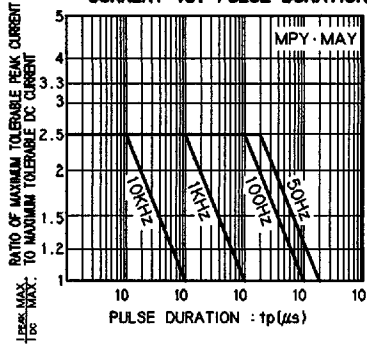
RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT (Ta=25°C)



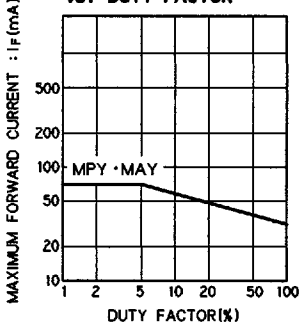
RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE (If=20mA)



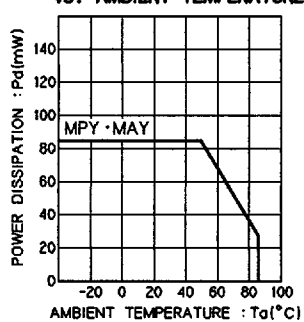
MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



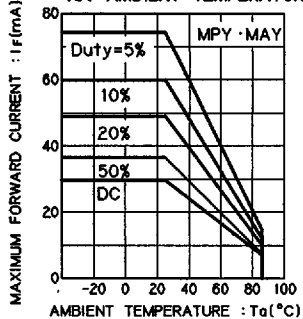
MAXIMUM FORWARD CURRENT vs. DUTY FACTOR



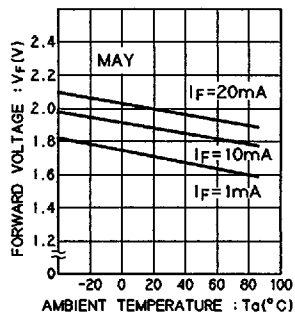
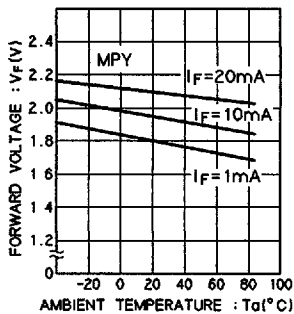
POWER DISSIPATION vs. AMBIENT TEMPERATURE



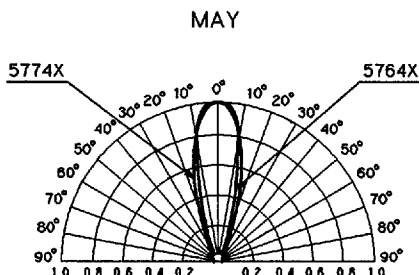
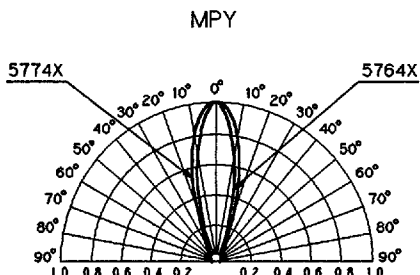
MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE



FORWARD VOLTAGE vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

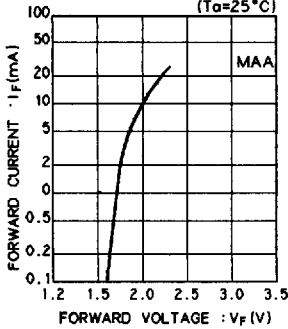


ORANGE

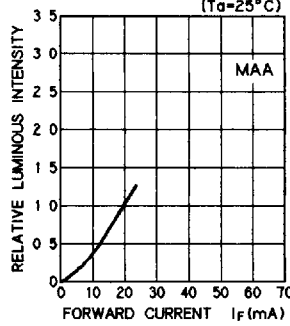
55E D

4678158 0001518 193 IIST

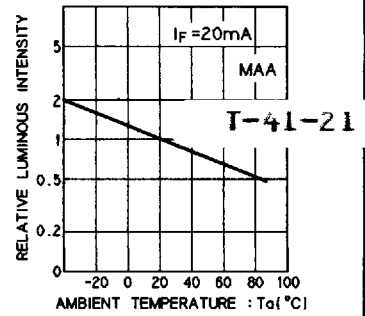
FORWARD CURRENT vs. FORWARD VOLTAGE
($T_a=25^\circ\text{C}$)



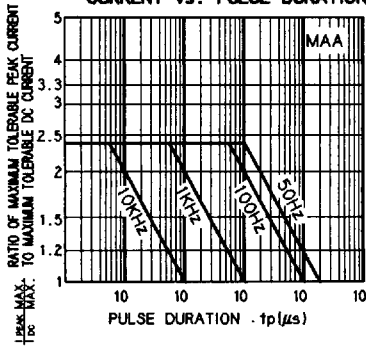
RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT
($T_a=25^\circ\text{C}$)



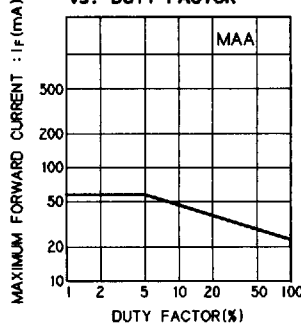
RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE



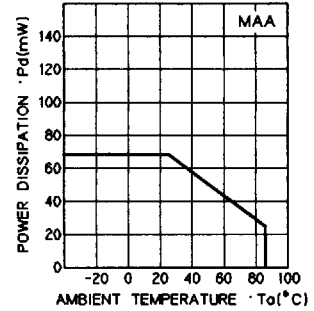
MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



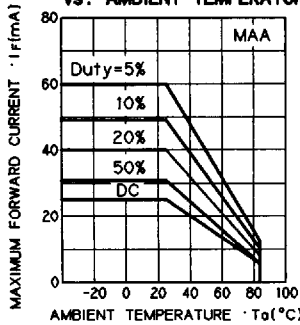
MAXIMUM FORWARD CURRENT vs. DUTY FACTOR



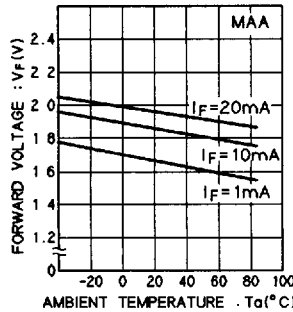
POWER DISSIPATION vs. AMBIENT TEMPERATURE



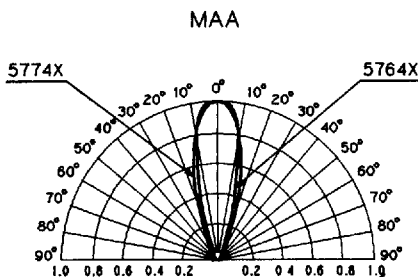
MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE



FORWARD VOLTAGE vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION



LED LAMP