

# 4565S/4575S SERIES

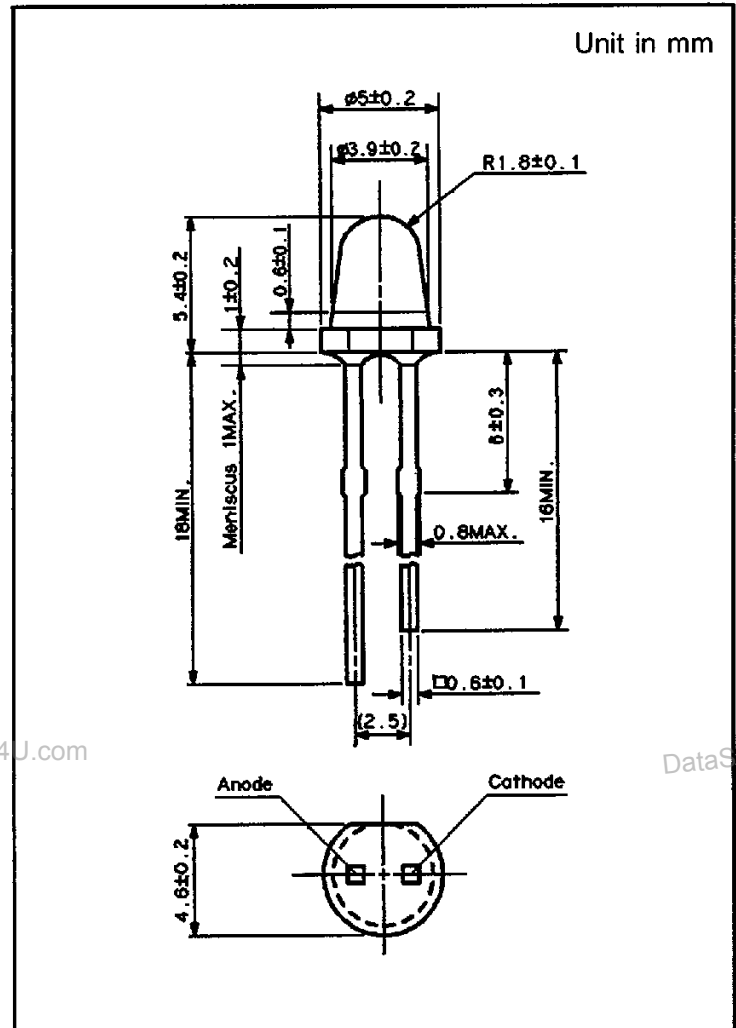
## FEATURES

- 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

(Ta=25°C)

Parameter	Symbol	Red			Green		Yellow		Orange	Units
		BR	MPR	MVR	MBG	MPG	MPY	MAY	MAA	
Forward Current	I <sub>F</sub>	50	30	30	25	25	30	30	25	mA
Peak Forward Current	I <sub>FM</sub>	300	75	75	60	60	75	75	60	mA
Reverse Voltage	V <sub>R</sub>	4			4		4		4	V
Power Dissipation	P <sub>d</sub>	100	75	75	70	70	85	85	70	mW
Operating Temperature	T <sub>opr</sub>	-30~+85			-30~+85		-30~+85		-30~+85	°C
Storage Temperature	T <sub>stg</sub>	-30~+100			-30~+100		-30~+100		-30~+100	°C

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

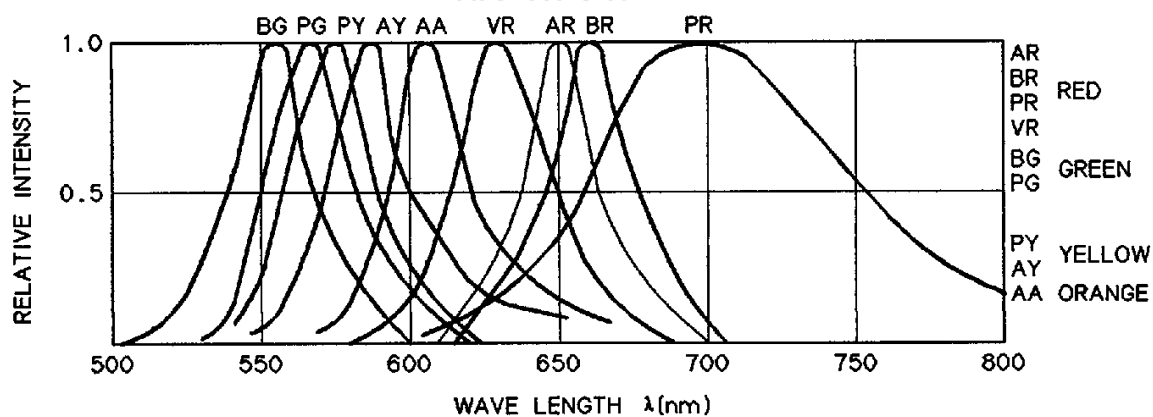
Type No.	Chip		Lens *	Iv(mcd)		at I <sub>F</sub> (mA)	Peak Wave Length λ <sub>p</sub> (nm)	Spectral Line Half Width Δλ(nm)	V <sub>F</sub> (V)		at I <sub>F</sub> (mA)	at V <sub>R4V</sub> I <sub>R</sub> (μA)	Capacitance C <sub>o</sub> (pF)
	Material	Emitted Color		Min.	Typ.				Typ.	Max.			
BR4565 (75S)	GaAlAs	Red	P.C (P.D)	10 (6)	20 (12)	20	660	30	1.7	2.0	20	20	50
MPR4565S (75S)	GaP	Red	P.C (P.D)	1.5 (0.6)	3.0 (1.2)	10	700	100	2.1	2.8	10	20	40
MVR4565S (75S)	GaAsP/GaP	Red	P.C (P.D)	8 (5)	16 (10)	20	630	30	2.0	2.8	20	20	10
MBG4565S (75S)	GaP	Pure Green	P.C (P.D)	5 (3)	10 (6)	20	555	30	2.1	2.8	20	20	25
MPG4565S (75S)	GaP	Green	P.C (P.D)	10 (6)	20 (12)	20	560	30	2.1	2.8	20	20	25
MPY4565S (75S)	GaP	Yellow	P.C (P.D)	15 (8)	30 (16)	20	570	30	2.1	2.8	20	20	20
MAY4565S (75S)	GaAsP/GaP	Yellow	P.C (P.D)	10 (4)	20 (8)	20	580	30	2.2	2.8	20	20	10
MAA4565S (75S)	GaAsP/GaP	Orange	P.C (P.D)	10 (4)	20 (8)	20	605	30	2.2	2.8	20	20	10

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

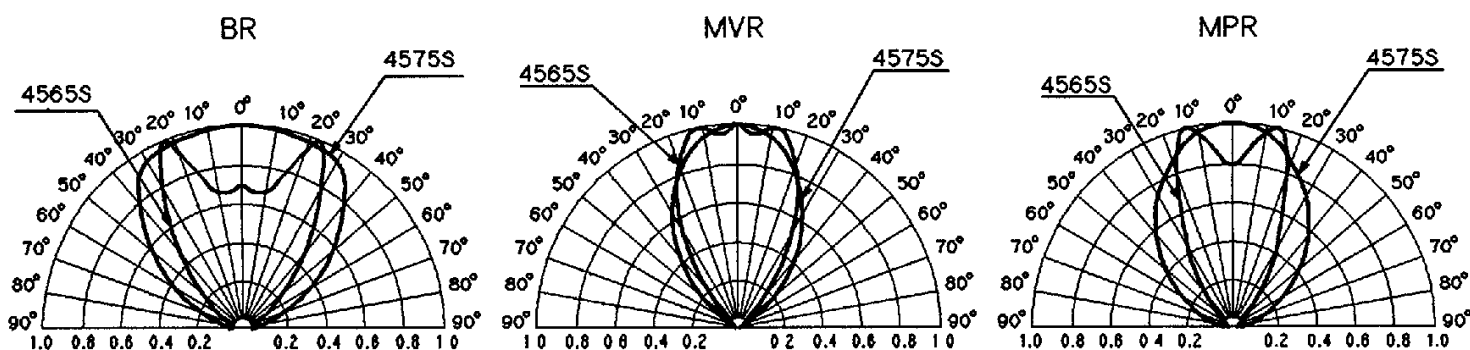
C.D = Color Diffused  
 W.S.D = White Surface Diffused  
 C.S.D = Color Surface Diffused

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

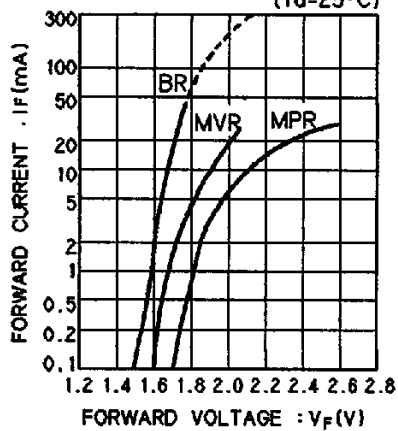
## ■ SPECTRAL DISTRIBUTION



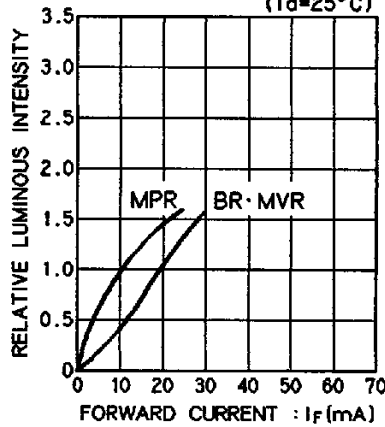
## ■ SPATIAL DISTRIBUTION



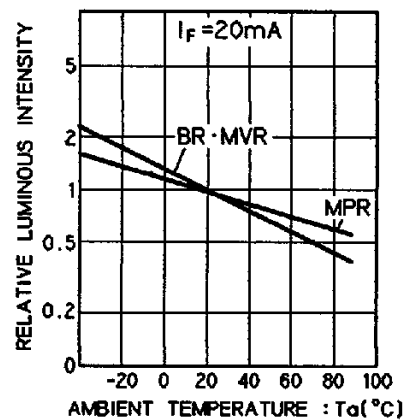
FORWARD CURRENT vs. FORWARD VOLTAGE (Ta=25°C)



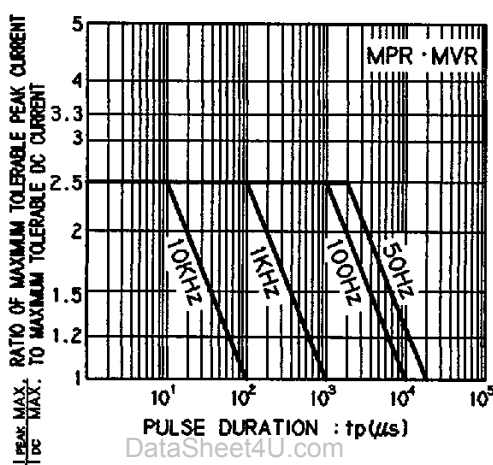
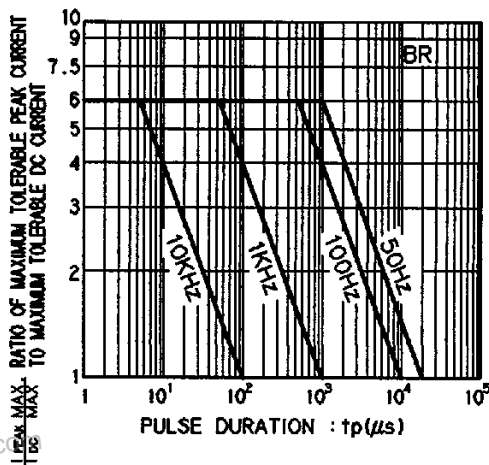
RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT (Ta=25°C)



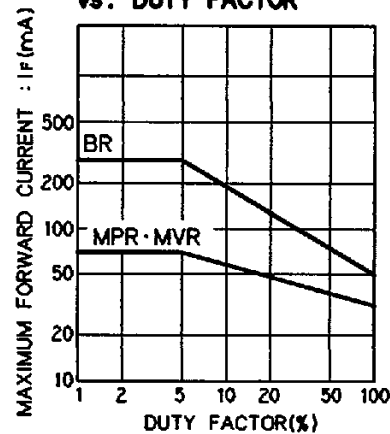
RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE (If=20mA)



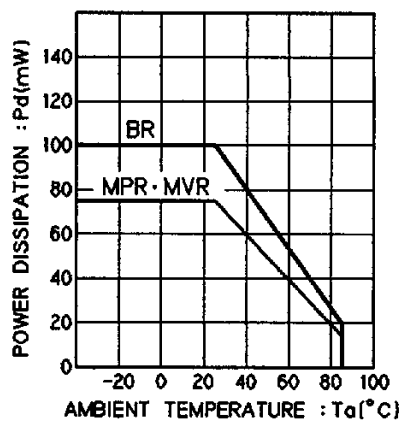
MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



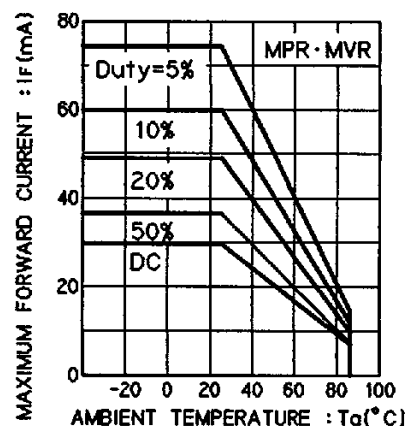
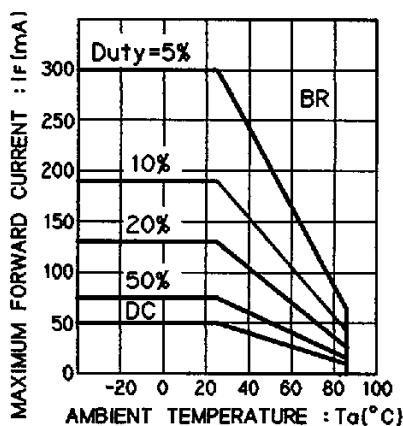
MAXIMUM FORWARD CURRENT vs. DUTY FACTOR



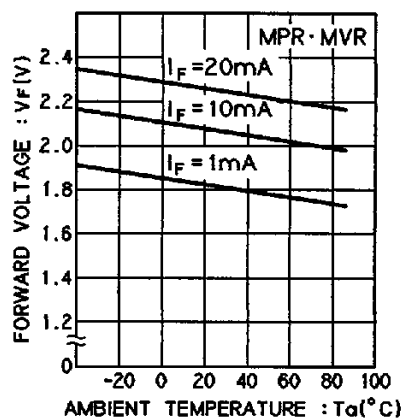
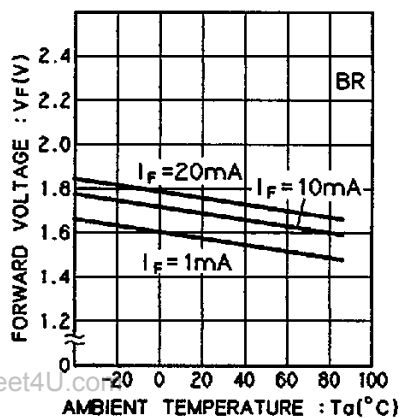
POWER DISSIPATION vs. AMBIENT TEMPERATURE



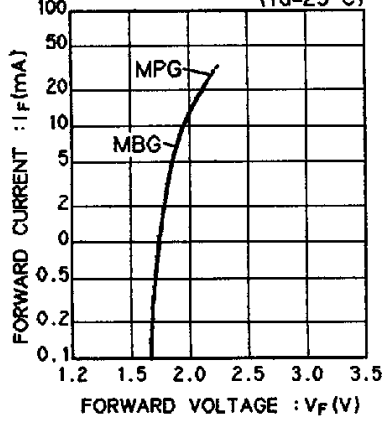
MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE



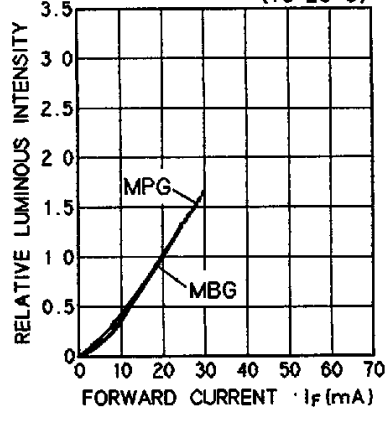
FORWARD VOLTAGE vs. AMBIENT TEMPERATURE



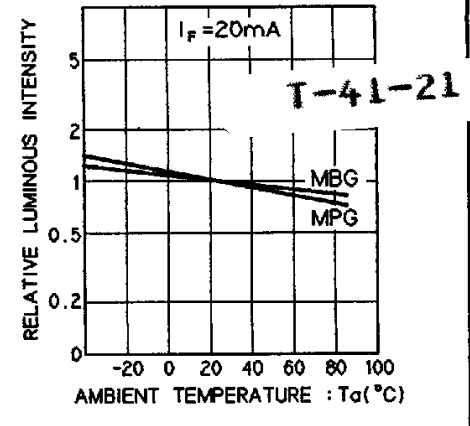
**FORWARD CURRENT vs. FORWARD VOLTAGE**  
( $T_a=25^\circ\text{C}$ )



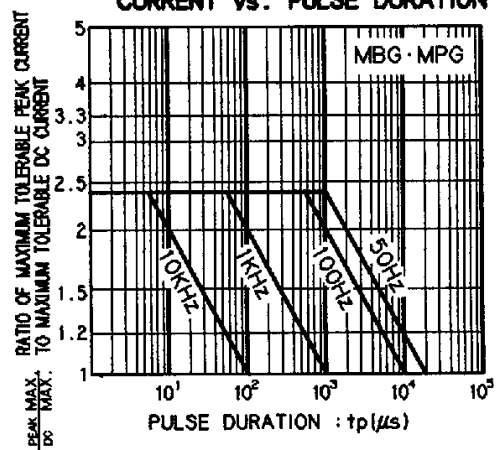
**RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT**  
( $T_a=25^\circ\text{C}$ )



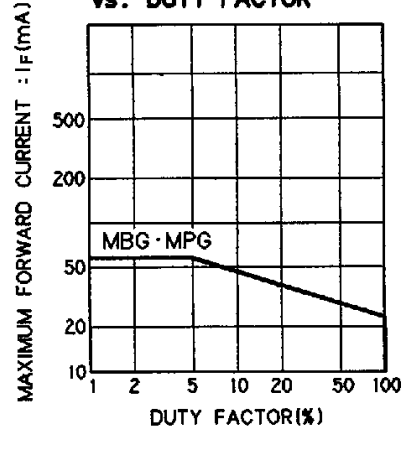
**RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE**



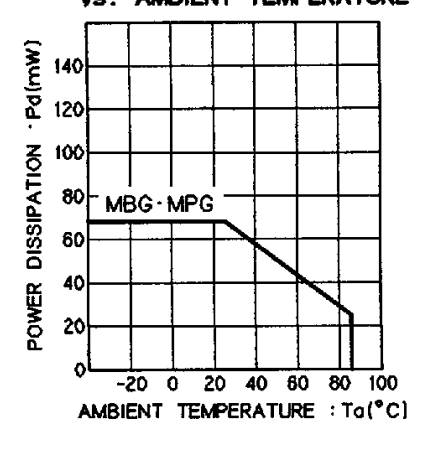
**MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION**



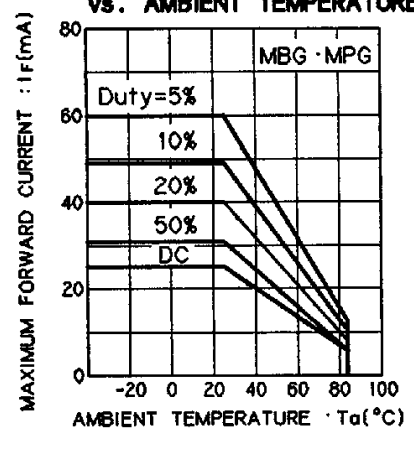
**MAXIMUM FORWARD CURRENT vs. DUTY FACTOR**



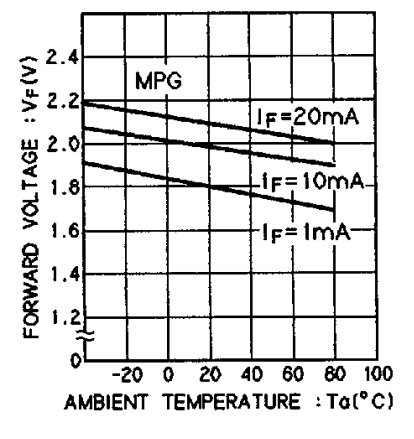
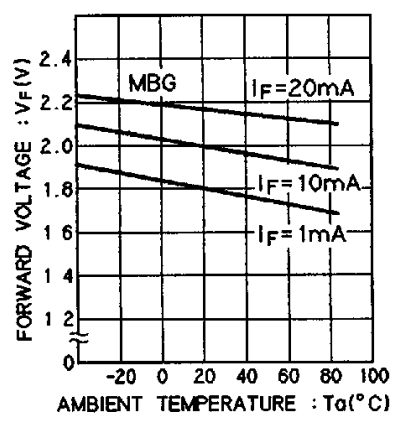
**POWER DISSIPATION vs. AMBIENT TEMPERATURE**



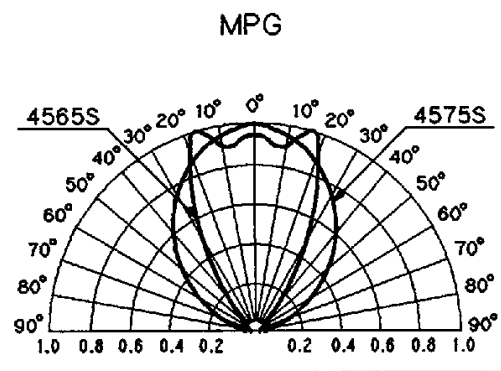
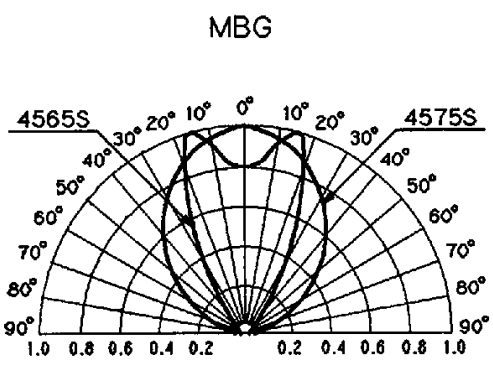
**MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE**

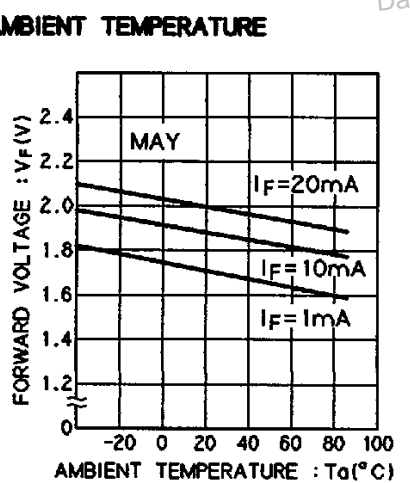
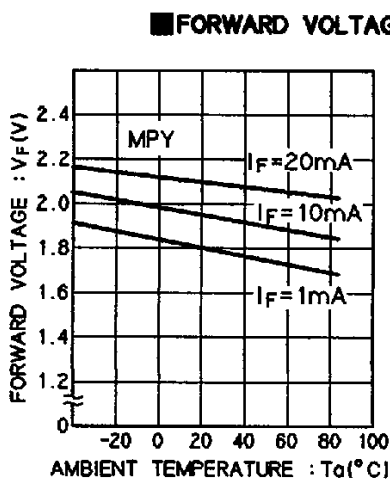
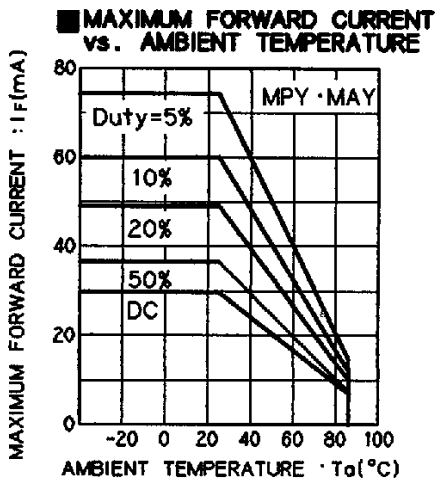
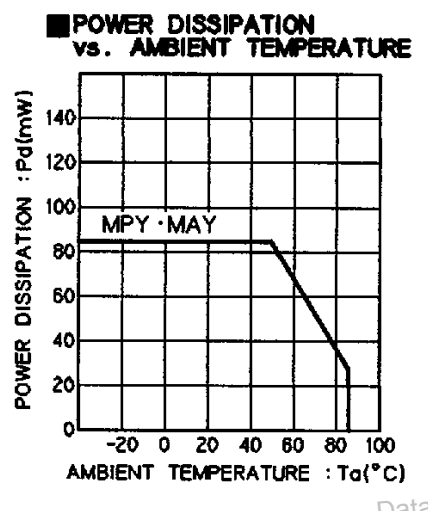
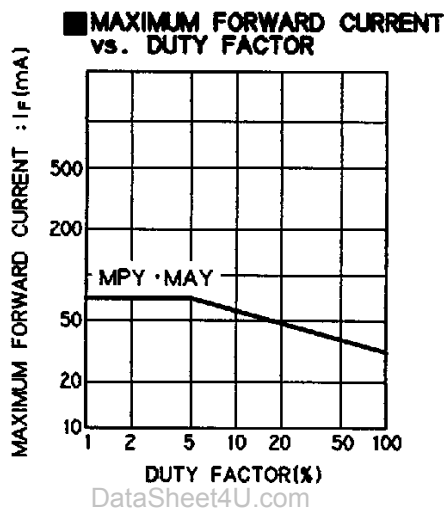
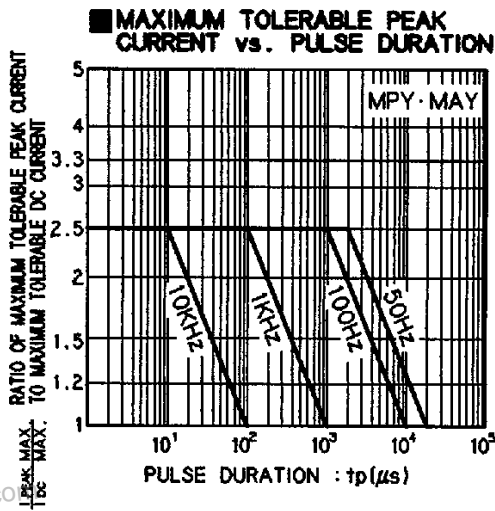
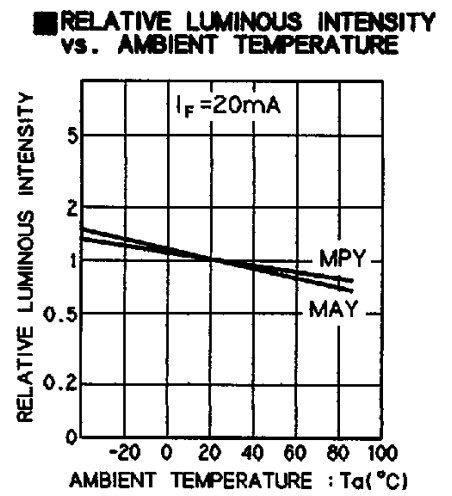
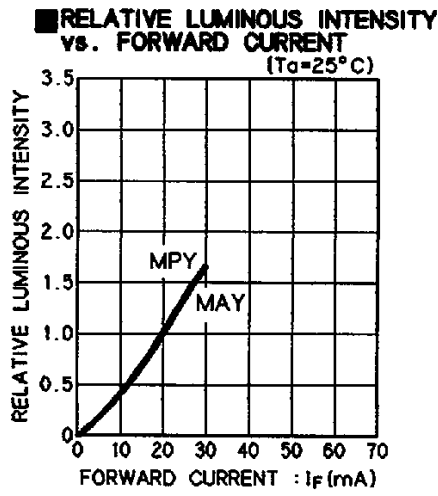
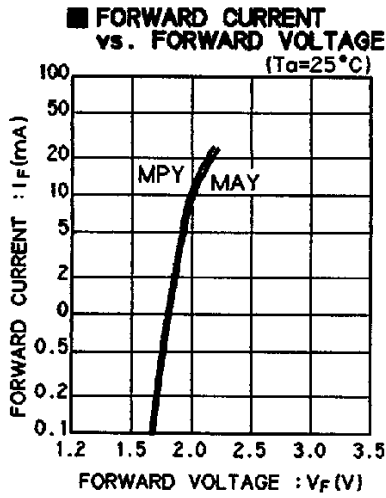


Data **FORWARD VOLTAGE vs. AMBIENT TEMPERATURE**

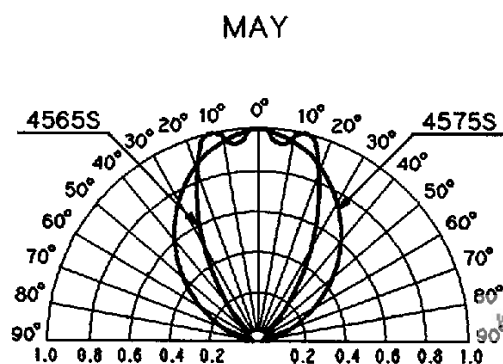
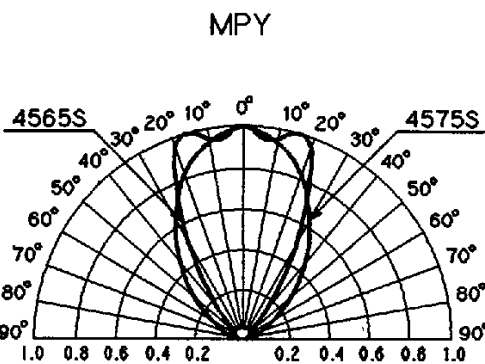


**SPATIAL DISTRIBUTION**

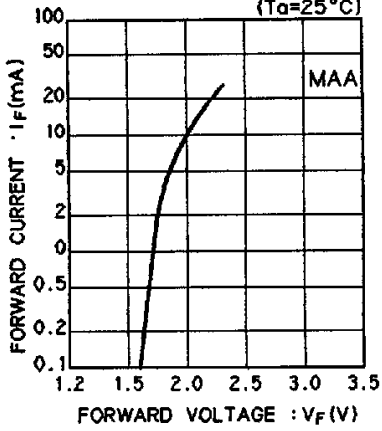




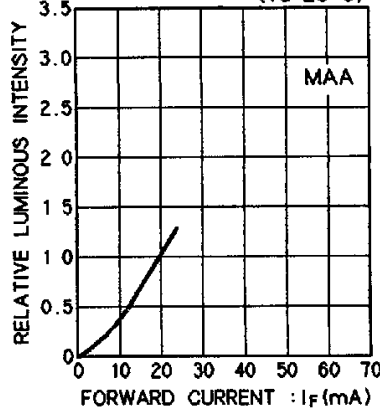
**SPATIAL DISTRIBUTION**



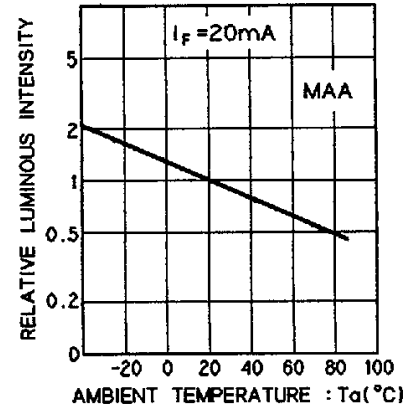
**FORWARD CURRENT vs. FORWARD VOLTAGE**  
( $T_a=25^\circ\text{C}$ )



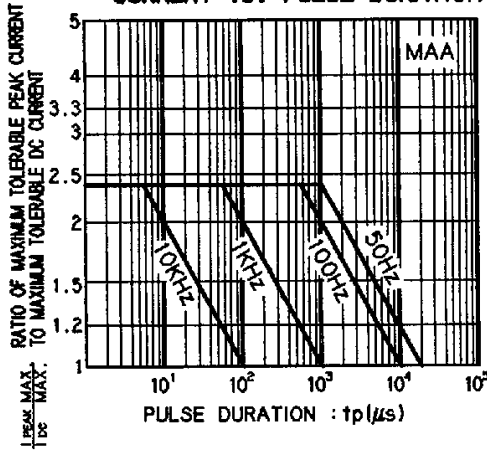
**RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT**  
( $T_a=25^\circ\text{C}$ )



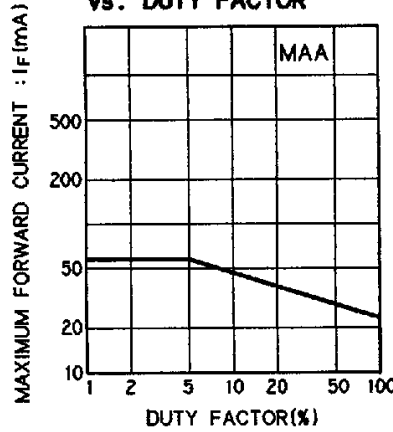
**RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE**



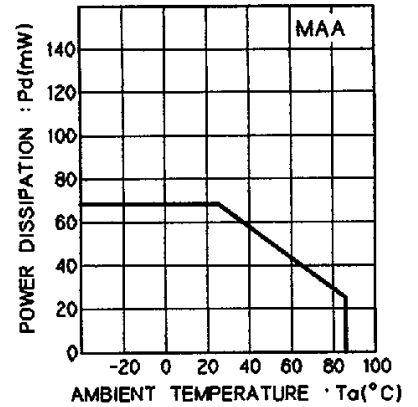
**MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION**



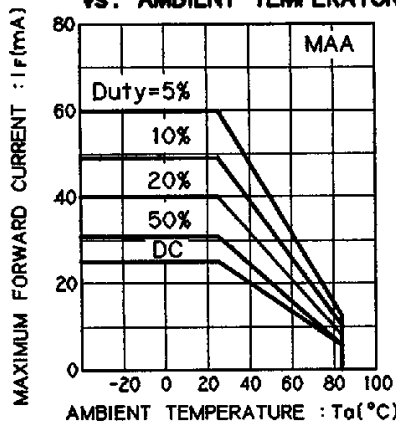
**MAXIMUM FORWARD CURRENT vs. DUTY FACTOR**



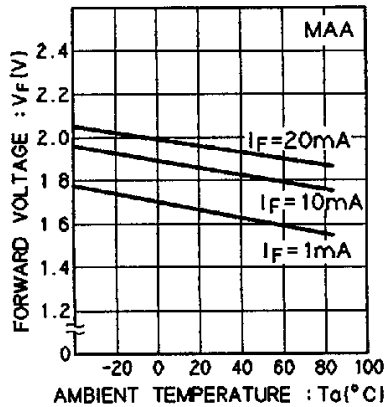
**POWER DISSIPATION vs. AMBIENT TEMPERATURE**



**MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE**



**FORWARD VOLTAGE vs. AMBIENT TEMPERATURE**



**SPATIAL DISTRIBUTION**

