



SUPER BRIGHT LED LAMP

ROUND SHAPE TYPE
φ3 (T-1)

3402S/3412S/3422S/3432S/3902S/3912S/3922S/3932S SERIES

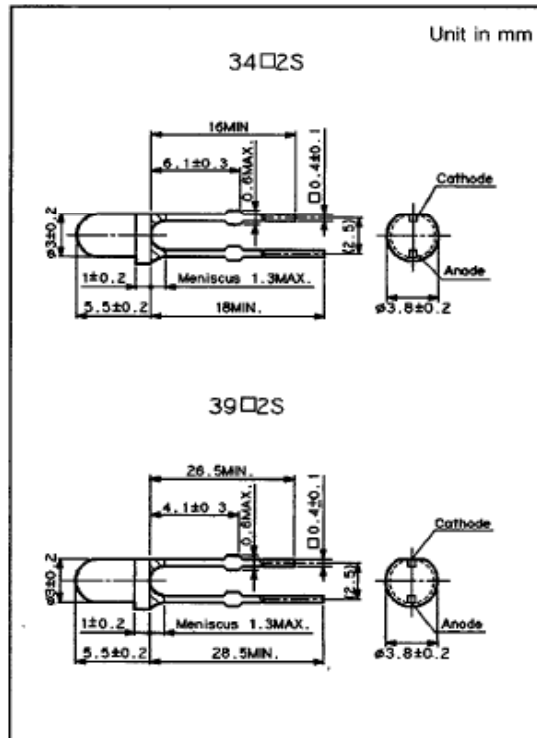
FEATURES

- AVAILABLE IN 4 COLORS; RED, GREEN, YELLOW AND ORANGE
- ALL RESIN MOLDED PACKAGE
- AVAILABLE IN WIDE VIEWING AND NARROW VIEWING ANGLES
- LOW CURRENT TYPE
- LARGE ALLOWABLE CURRENT CAPACITY, EXCELLENT FOR PULSE DRIVE
- HIGH RELIABILITY, LONG LIFE

APPLICATION

- 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	AR	PR	BG	PG(Y)	PY	AY	AA	
Forward Current	I _F	50	50	30	50	50	50	50	50	mA
Peak Forward Current	I _{FM}	300	300	100	100	100	100	100	100	mA
Reverse Voltage	V _R	4			4		4		4	V
Power Dissipation	P _d	100	100	75	125	125	125	125	125	mW
Operating Temperature	T _{opr}	-30~+85			-30~+85		-30~+85		-30~+85	°C
Storage Temperature	T _{stg}	-30~+100			-30~+100		-30~+100		-30~+100	°C

Electro-Optical Characteristics

(Ta = 25°C)

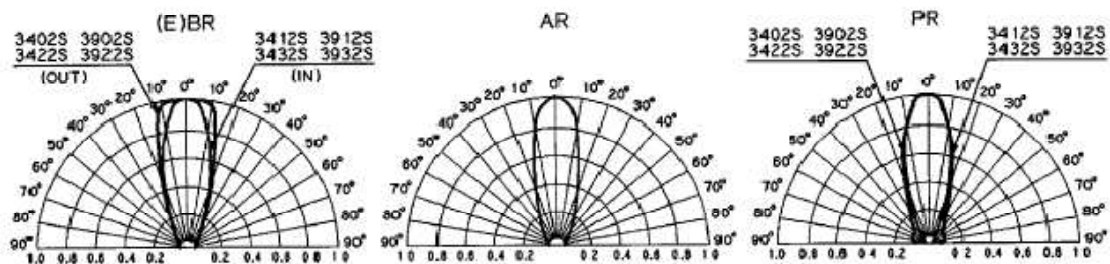
Type No.	Chip		Lens *	Iv(mcd)		at If (mA)	Peak Wave Length λp(nm)	Spectral Line Half Width Δλ(nm)	Vr(V)		at If (mA)	at Vr4V If(μA)	Capacitance Co(pF)
	Material	Emitted Color		Min.	Typ.				Typ.	Max.			
BR3402S (22S)	GaAlAs	Red	W.C. (C.C.)	15.0	30.0	20	660	30	1.7	2.0	20	100	50
BR3432S (12S)	GaAlAs	Red	C.D. (W.D.)	12.0	24.0	20	660	30	1.7	2.0	20	100	50
EBR3402S (22S)	GaAlAs	Red	W.C. (C.C.)	30.0	60.0	20	660	30	1.7	2.0	20	100	50
EBR3432S (12S)	GaAlAs	Red	C.D. (W.D.)	24.0	48.0	20	660	30	1.7	2.0	20	100	50
AR3402S (22S)	GaAsP	Red	W.C. (C.C.)	2.5	5.0	20	650	30	1.7	2.0	20	100	40
AR3432S (12S)	GaAsP	Red	C.D. (W.D.)	1.0	2.0	20	650	30	1.7	2.0	20	100	40
PR3402S (22S)	GaP	Red	W.C. (C.C.)	2.5	5.0	10	700	100	2.1	2.5	10	100	70
PR3432S (12S)	GaP	Red	C.D. (W.D.)	1.0	2.0	10	700	100	2.1	2.5	10	100	70
BG3402S (22S)	GaP	Green	W.C. (C.C.)	5.0	10.0	20	555	30	2.1	2.5	20	100	50
BG3432S (12S)	GaP	Green	C.D. (W.D.)	2.0	4.0	20	555	30	2.1	2.5	20	100	50
EBG3402S (22S)	GaP	Green	W.C. (C.C.)	10.0	15.0	20	555	30	2.1	2.5	20	100	50
EBG3432S (12S)	GaP	Green	C.D. (W.D.)	4.0	8.0	20	555	30	2.1	2.5	20	100	50
PG3422SY	GaP	Green	C.C.	10.0	20.0	20	565	30	2.1	2.5	20	100	40
PG3432SY	GaP	Green	C.D.	7.0	14.0	20	565	30	2.1	2.5	20	100	40
PY3402S (22S)	GaP	Yellow	W.C. (C.C.)	12.0	24.0	20	570	30	2.1	2.5	20	100	40
PY3432S (12S)	GaP	Yellow	C.D. (W.D.)	10.0	20.0	20	570	30	2.1	2.5	20	100	40
EPY3402S (22S)	GaP	Yellow	W.C. (C.C.)	24.0	48.0	20	570	30	2.1	2.5	20	100	40
EPY3432S (12S)	GaP	Yellow	C.D. (W.D.)	20.0	30.0	20	570	30	2.1	2.5	20	100	40
AY3402S (22S)	GaAsP/ GaP	Yellow	W.C. (C.C.)	8.0	16.0	20	580	30	2.2	2.5	20	100	40
AY3432S (12S)	GaAsP/ GaP	Yellow	C.D. (W.D.)	6.0	12.0	20	580	30	2.2	2.5	20	100	40
EAY3402S (22S)	GaAsP/ GaP	Yellow	W.C. (C.C.)	16.0	24.0	20	580	30	2.2	2.5	20	100	40
EAY3432S (12S)	GaAsP/ GaP	Yellow	C.D. (W.D.)	12.0	18.0	20	580	30	2.2	2.5	20	100	40
AA3402S (22S)	GaAsP/ GaP	Orange	W.C. (C.C.)	8.0	16.0	20	605	30	2.2	2.5	20	100	50
AA3432S (12S)	GaAsP/ GaP	Orange	C.D. (W.D.)	6.0	12.0	20	605	30	2.2	2.5	20	100	50
EAA3402S (22S)	GaAsP/ GaP	Orange	W.C. (C.C.)	16.0	24.0	20	605	30	2.2	2.5	20	100	50
AA3432S (12S)	GaAsP/ GaP	Orange	C.D. (W.D.)	12.0	18.0	20	605	30	2.2	2.5	20	100	50

* 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

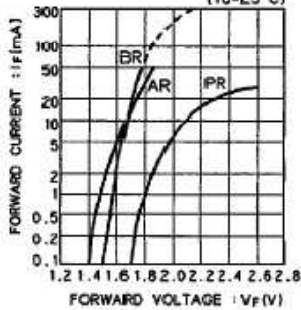
P.C. = Pastel Color
P.D. = Pastel Diffused
P.S.D. = Pastel Surface Diffused

SPATIAL DISTRIBUTION

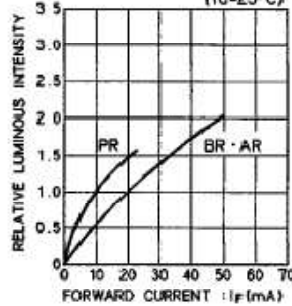


RED

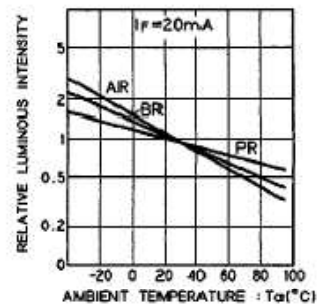
FORWARD CURRENT vs. FORWARD VOLTAGE
($T_a=25^\circ\text{C}$)



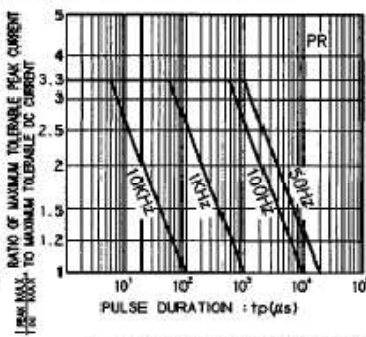
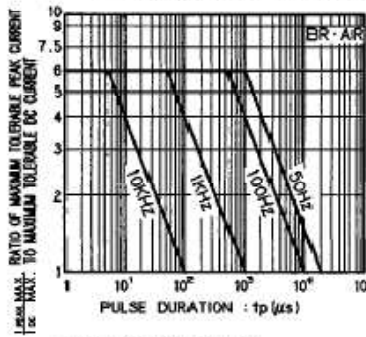
RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT
($T_a=25^\circ\text{C}$)



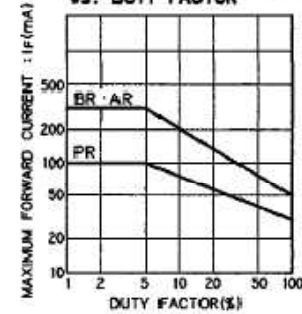
RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE



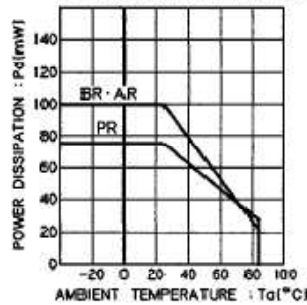
MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



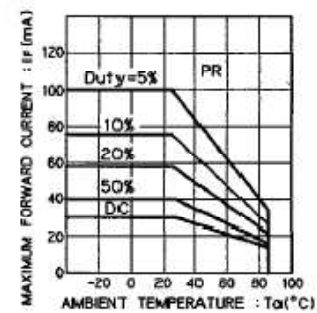
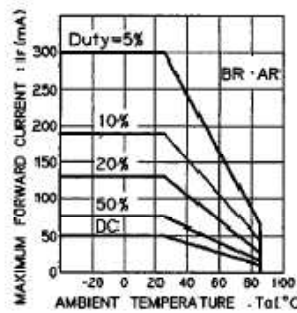
MAXIMUM FORWARD CURRENT vs. DUTY FACTOR



POWER DISSIPATION vs. AMBIENT TEMPERATURE



MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE



FORWARD VOLTAGE vs. AMBIENT TEMPERATURE

