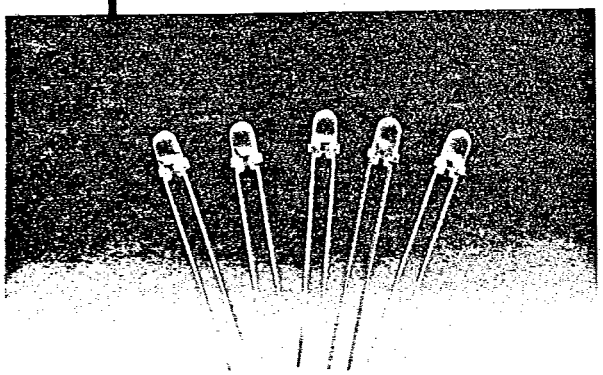
STANLEY

T-41-21

STANLEY SUPER BRIGHT LED LAMP

φ3(T-1)TYPE

3868S/3878S SERIES



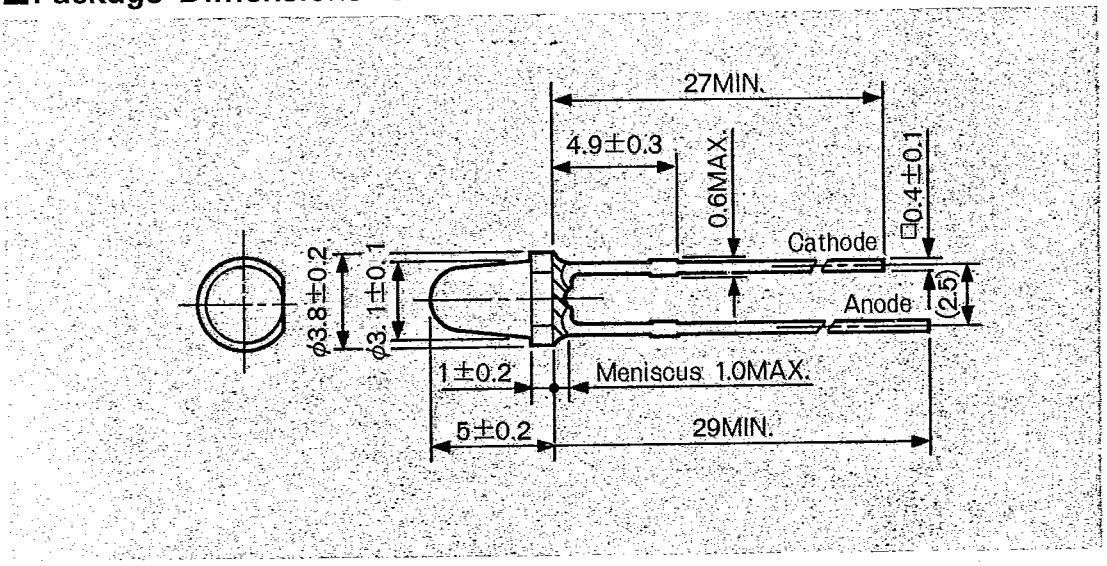
■SELECTON GUIDE

COLOR	MATERIAL	PART NUMBER
Red	GaAlAs	BR 3868S, 3878S
	GaAsP/GaP	(M)VR 3868S, 3878S
	GaP	(M)PR 3868S, 3878S
Green	GaP	(M)BG 3868S, 3878S
		(M)PG 3868S, 3878S
Yellow	GaP	(M)PY 3868S, 3878S
	GaAsP/GaP	(M)AY 3868S, 3878S
Orange	GaAsP/GaP	(M)AA 3868S, 3878S

■DESCRIPTION

This series of products was developed for use in lowpower consumption.
It is housed in 3mm diameter pastel clear molded packages and diffused types are also available.
This series employs low current type LED dies.
General display use

■Package Dimensions–Unit in mm



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Red			Green		Yellow		Orange	Units
		BR	PR	VR	BG	PG	PY	AY	AA	
Forward Current	I_F	50	30	30	25	25	30	30	25	mA
Peak Forward Current	I_{FM}	300	75	75	60	60	75	75	60	mA
Reverse Voltage	V_R	4			4		4		4	V
Power Dissipation	Pd	100	75	75	70	70	85	85	70	mW
Operating Temperature	Topr	−30~+85			−30~+85		−30~+85		-30~+85	°C
Storage Temperature	Tstg	−30~+100			−30~+100		−30~+100		-30~+100	°C
Lead Soldering Temperature		260°C for 5 seconds (3.0mm from body)								

Electro-Optical Characteristics (Ta=25°C)

Type No.	Chip		Lens	Iv(mcd)		at I_F	Peak Wave Length λp(nm)	Spectral Line Half Width Δλ(nm)	V_F(V)		at I_F	at V_R4V I_R(μA)	Capacitance Co(pF)
	Material	Emitted Color		Min.	Typ.	(mA)			Typ.	Max.	(mA)		
BR3868S(78)	GaAlAs	Red	P.C (P.D)	40(15)	80(30)	20	660	30	1.7	2.0	20	20	50
MPR3868S(78)	GaP	Red	P.C (P.D)	3(1.5)	6(3)	10	700	100	2.1	2.8	10	20	40
MVR3868S(78)	GaAsP/GaP	Red	P.C (P.D)	20(10)	40(20)	20	630	30	2.0	2.8	20	20	10
MBG3868S(78)	GaP	Green	P.C (P.D)	10(5)	20(10)	20	555	30	2.1	2.8	20	20	25
MPG3868S(78)	GaP	Green	P.C (P.D)	20(10)	40(20)	20	560	30	2.1	2.8	20	20	25
MPY3868S(78)	GaP	Yellow	P.C (P.D)	30(15)	60(30)	20	570	30	2.1	2.8	20	20	20
MAY3868S(78)	GaAsP/GaP	Yellow	P.C (P.D)	20(10)	40(20)	20	580	30	2.2	2.8	20	20	10
MAA3868S(78)	GaAsP/GaP	Orange	P.C (P.D)	20(10)	40(20)	20	605	30	2.2	2.8	20	20	10

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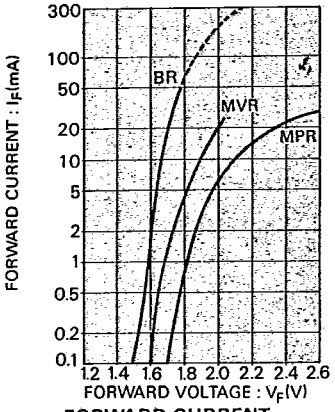
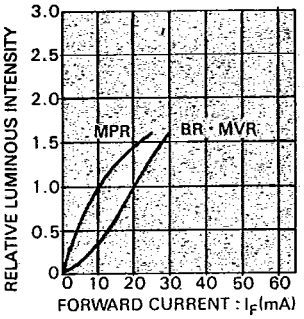
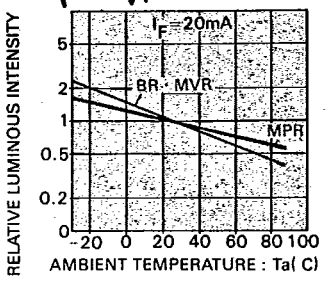
RED



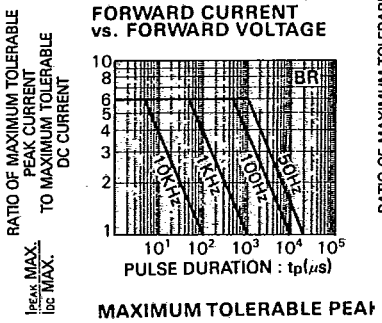
FORWARD CURRENT vs. FORWARD VOLTAGE

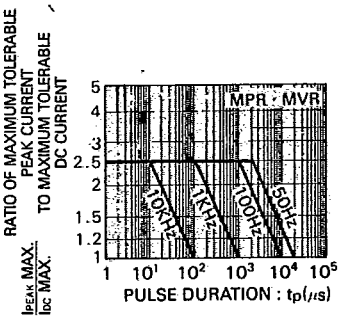


RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT

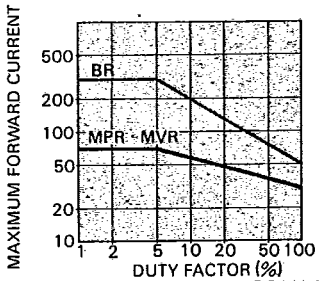


RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE

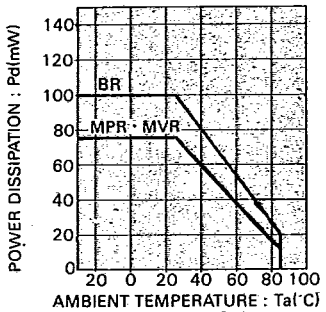




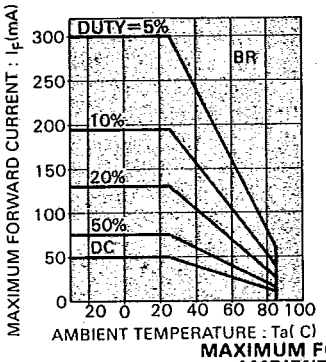
MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION

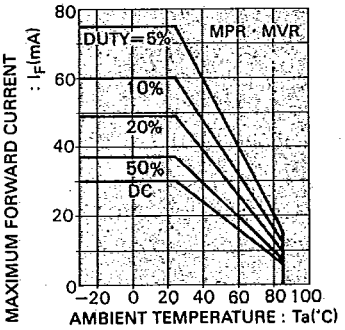


MAXIMUM FORWARD CURRENT vs. DUTY FACTOR

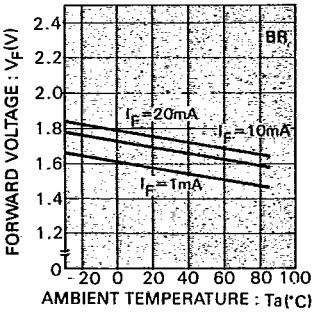


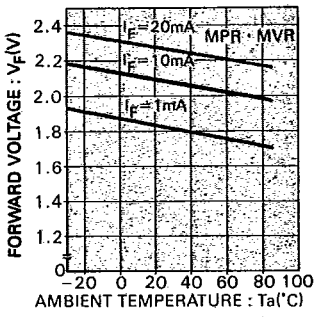
POWER DISSIPATION vs. AMBIENT TEMPERATURE





MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE





FORWARD VOLTAGE vs. AMBIENT TEMPERATURE

GREEN

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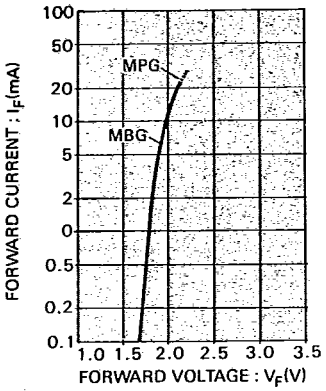
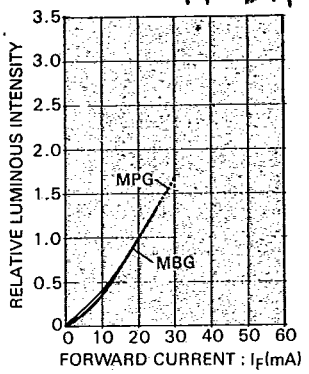
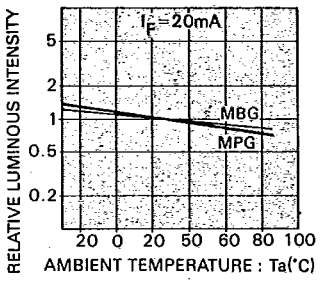


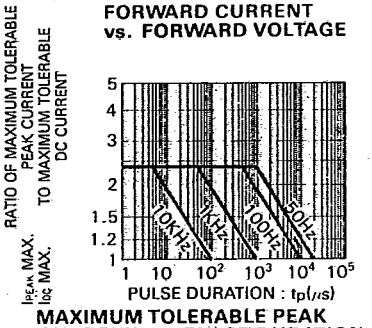
FORWARD CURRENT vs. FORWARD VOLTAGE



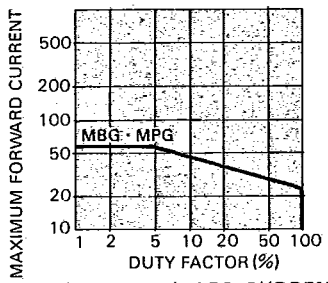
RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT



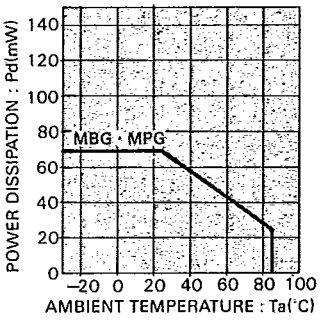
RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE



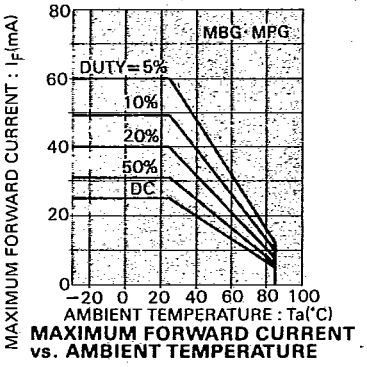
MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



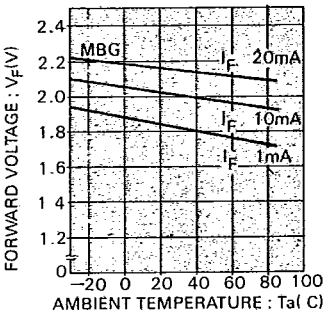
MAXIMUM FORWARD CURRENT vs. DUTY FACTOR

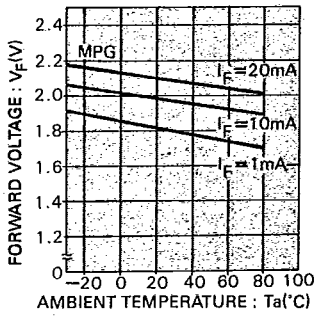


POWER DISSIPATION vs. AMBIENT TEMPERATURE



MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE





FORWARD VOLTAGE vs. AMBIENT TEMPERATURE

LED LAMP

YELLOW

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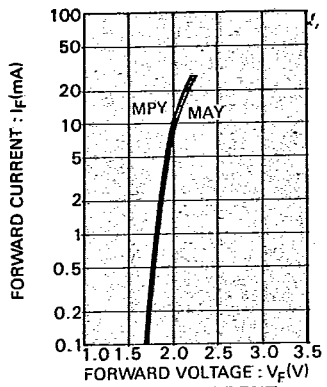
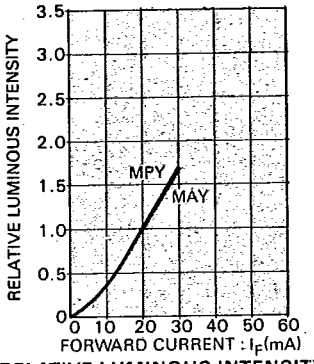
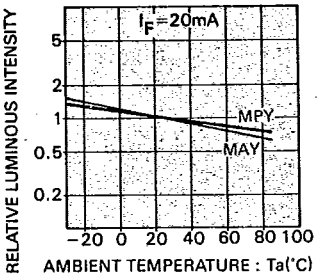


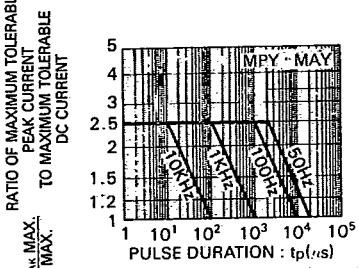
FORWARD CURRENT vs. FORWARD VOLTAGE



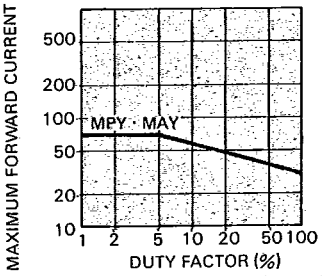
RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT



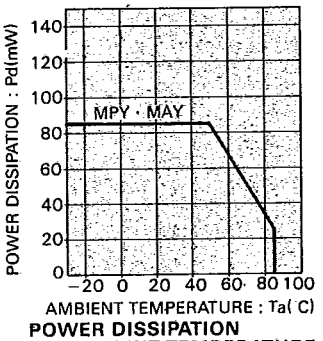
RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE



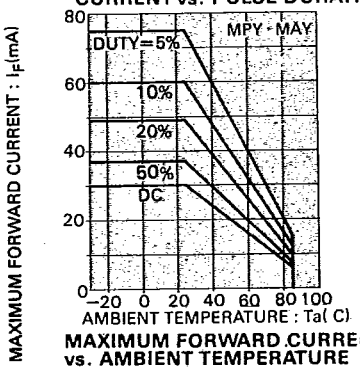
MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



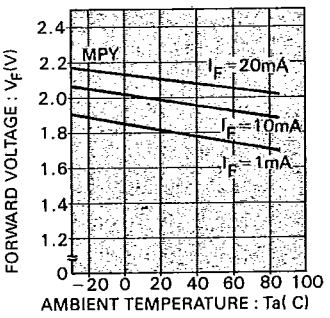
MAXIMUM FORWARD CURRENT vs. DUTY FACTOR

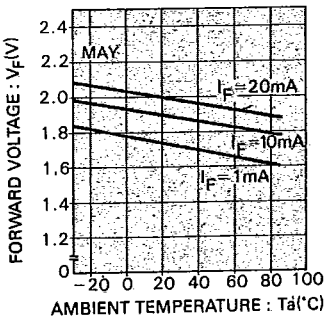


POWER DISSIPATION vs. AMBIENT TEMPERATURE



MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE





FORWARD VOLTAGE vs. AMBIENT TEMPERATURE

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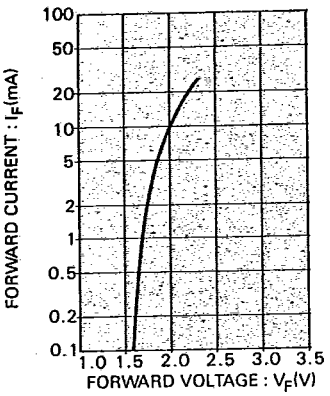
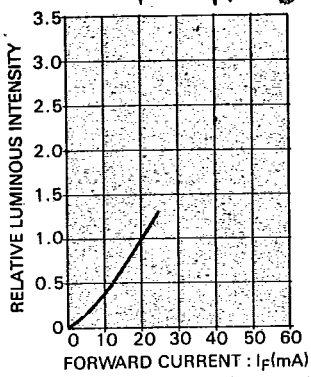
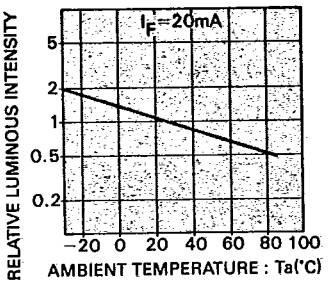
ORANGE



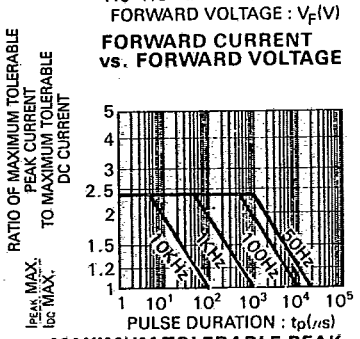
FORWARD CURRENT vs. FORWARD VOLTAGE



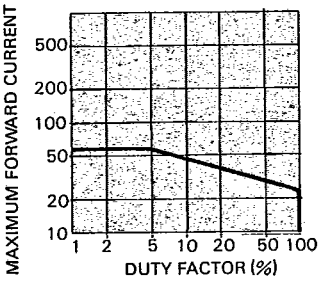
RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT



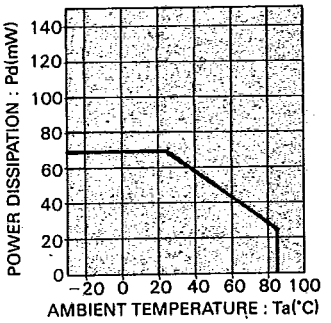
RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE



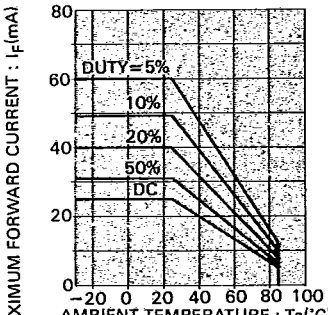
MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



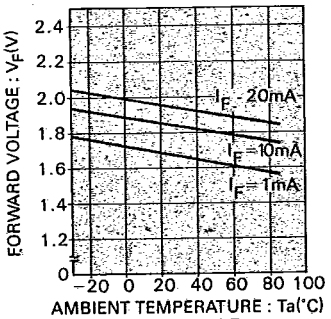
MAXIMUM FORWARD CURRENT vs. DUTY FACTOR



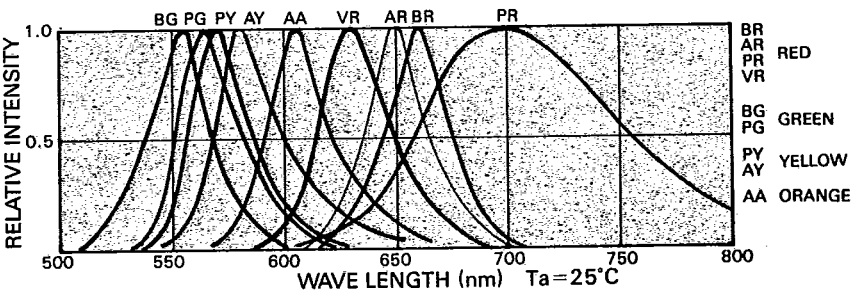
POWER DISSIPATION vs. AMBIENT TEMPERATURE



MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE



FORWARD VOLTAGE vs. AMBIENT TEMPERATURE



RELATIVE INTENSITY vs. WAVE LENGTH

LED LAMP