



STANLEY ELECTRIC CO LTD

**SUPER BRIGHT
LED LAMP**

ROUND SHAPE TYPE
φ5 (T-1 3/4)

5505S/5515S/5525S/5535S/5705S/5715S/5725S/5735S SERIES

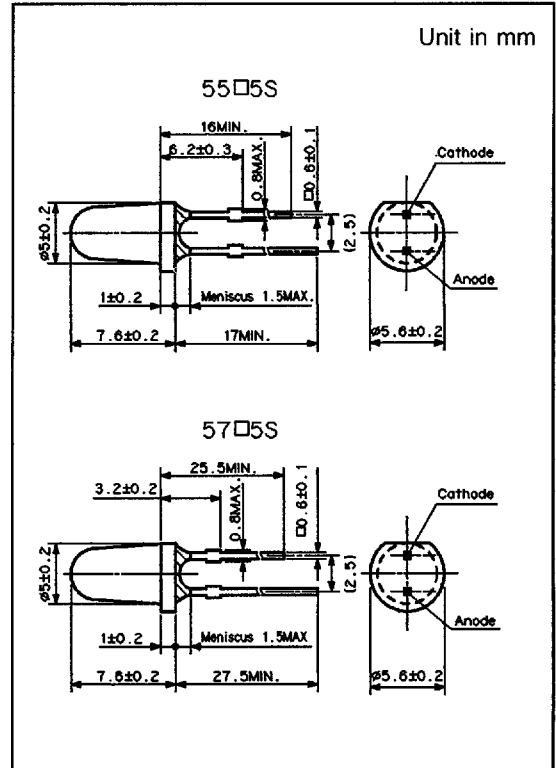
■ **FEATURES**

- AVAILABLE IN 4 COLORS; RED, GREEN, YELLOW AND ORANGE
- ALL RESIN MOLDED PACKAGE
- AVAILABLE IN WIDE-VIEWING AND NARROW-VIEWING ANGLES
- LOW CURRENT DRIVE
- 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	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

* 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.

Electro-Optical Characteristics

(Ta=25°C)

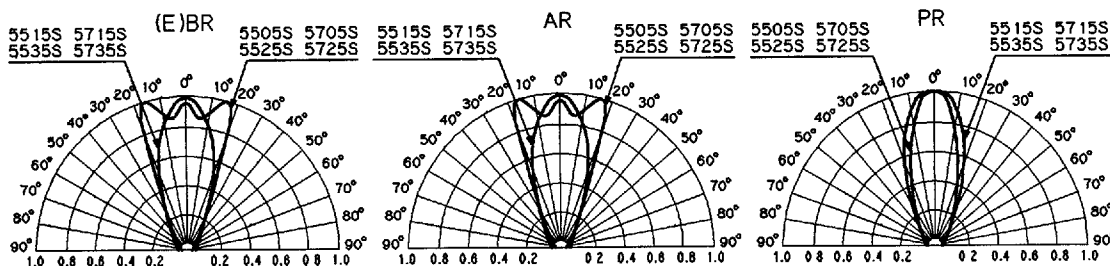
Type No.	Chip		Lens *	Iv(mcd)		at If (mA)	Peak Wave Length λp(nm)	Spectral Line Half Width Δλ(nm)	Vf(V)		at If (mA)	at Vr4V Ir(μA)	Capacitance Co(pF)
	Material	Emitted Color		Min.	Typ.				Typ.	Max.			
BR5505S (25S)	GaAlAs	Red	W.C (C.C)	10.0	20.0	20	660	30	1.7	2.0	20	100	50
BR5535S (15S)	GaAlAs	Red	C.D (W.D)	6.0	12.0	20	660	30	1.7	2.0	20	100	50
EBR5505S (25S)	GaAlAs	Red	W.C (C.C)	20.0	40.0	20	660	30	1.7	2.0	20	100	50
EBR5535S (15S)	GaAlAs	Red	C.D (W.D)	12.0	18.0	20	660	30	1.7	2.0	20	100	50
AR5505S (25S)	GaAsP	Red	W.C (C.C)	1.5	3.0	20	650	30	1.7	2.0	20	100	40
AR5535S (15S)	GaAsP	Red	C.D (W.D)	1.2	2.4	20	650	30	1.7	2.0	20	100	40
PR5505S (25S)	GaP	Red	W.C (C.C)	4.0	8.0	10	700	100	2.1	2.5	10	100	70
PR5535S (15S)	GaP	Red	C.D (W.D)	2.5	5.0	10	700	100	2.1	2.5	10	100	70
BG5505S (25S)	GaP	Pure Green	W.C (C.C)	6.0	12.0	20	555	30	2.1	2.5	20	100	50
BG5535S (15S)	GaP	Pure Green	C.D (W.D)	4.0	8.0	20	555	30	2.1	2.5	20	100	50
EBG5505S (25S)	GaP	Pure Green	W.C (C.C)	12.0	18.0	20	555	30	2.1	2.5	20	100	50
EBG5535S (15S)	GaP	Pure Green	C.D (W.D)	8.0	12.0	20	555	30	2.1	2.5	20	100	50
PG5525SY	GaP	Green	C.C	18.0	36.0	20	565	30	2.1	2.5	20	100	40
PG5535SY	GaP	Green	C.D (W.D)	12.0	24.0	20	565	30	2.1	2.5	20	100	40
PY5505S (25S)	GaP	Yellow	W.C (C.C)	25.0	50.0	20	570	30	2.1	2.5	20	100	40
PY5535S (15S)	GaP	Yellow	C.D (W.D)	15.0	30.0	20	570	30	2.1	2.5	20	100	40
EPY5505S (25S)	GaP	Yellow	W.C (C.C)	50.0	75.0	20	570	30	2.2	2.5	20	100	40
EPY5535S (15S)	GaP	Yellow	C.D (W.D)	30.0	45.0	20	570	30	2.1	2.5	20	100	40
AY5505S (25S)	GaAsP/GaP	Yellow	W.C (C.C)	15.0	30.0	20	580	30	2.1	2.5	20	100	40
AY5535S (15S)	GaAsP/GaP	Yellow	C.D (W.D)	8.0	20.0	20	580	30	2.2	2.5	20	100	40
EAY5505S (25S)	GaAsP/GaP	Yellow	W.C (C.C)	30.0	45.0	20	580	30	2.2	2.5	20	100	40
EAY5535S (15S)	GaAsP/GaP	Yellow	C.D (W.D)	20.0	30.0	20	580	30	2.2	2.5	20	100	40
AA5505S (25S)	GaAsP/GaP	Orange	W.C (C.C)	15.0	30.0	20	605	30	2.2	2.5	20	100	50
AA5535S (15S)	GaAsP/GaP	Orange	C.D (W.D)	8.0	20.0	20	605	30	2.2	2.5	20	100	50
EAA5505S (25S)	GaAsP/GaP	Orange	W.C (C.C)	30.0	45.0	20	605	30	2.2	2.5	20	100	50
EAA5535S (15S)	GaAsP/GaP	Orange	C.D (W.D)	20.0	30.0	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

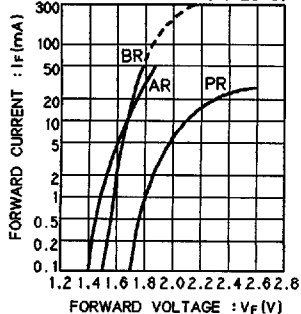
P.C = Pastel Color
 P.D = Pastel Diffused
 P.S.D = Pastel Surface Diffused

■ SPATIAL DISTRIBUTION

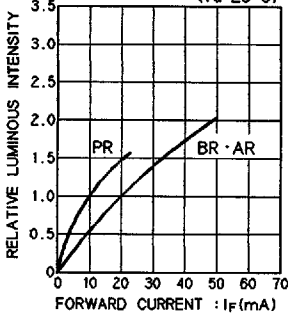


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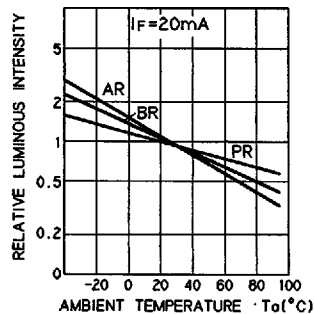
FORWARD CURRENT vs. FORWARD VOLTAGE
($T_a=25^\circ\text{C}$)



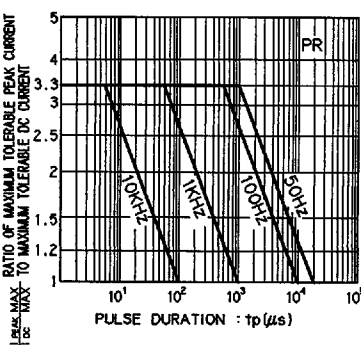
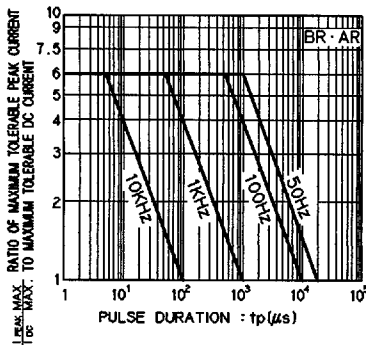
RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT
($T_a=25^\circ\text{C}$)



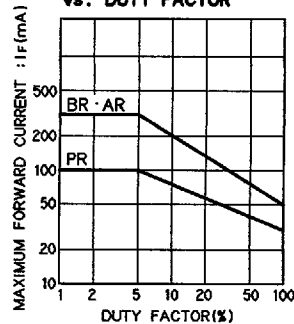
RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE



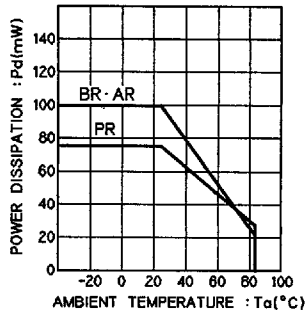
MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



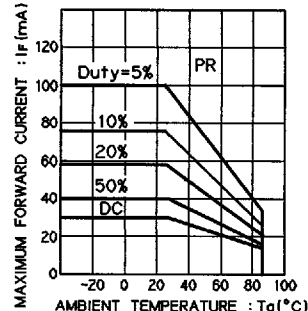
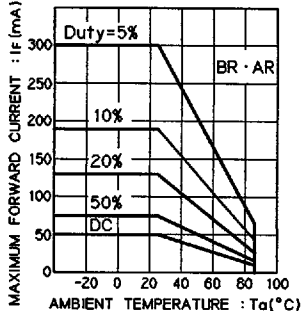
MAXIMUM FORWARD CURRENT vs. DUTY FACTOR



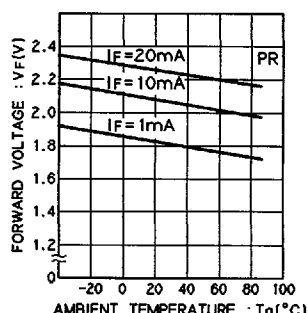
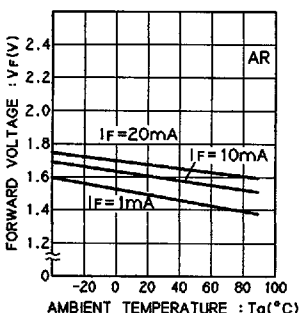
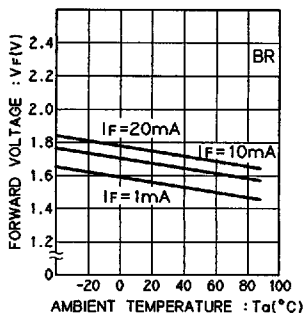
POWER DISSIPATION vs. AMBIENT TEMPERATURE



MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE

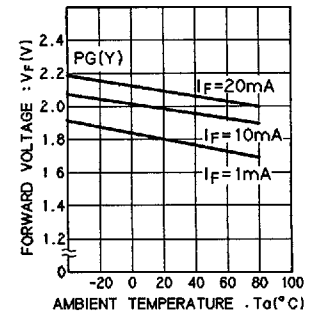
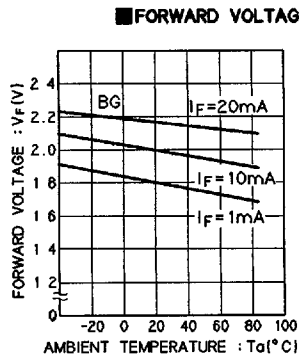
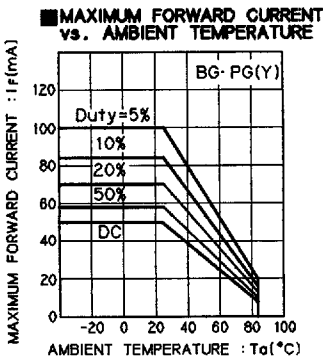
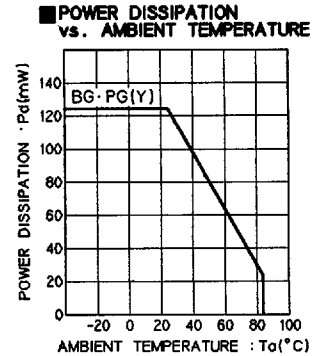
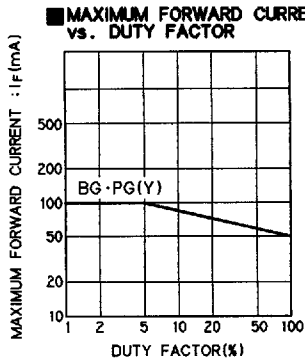
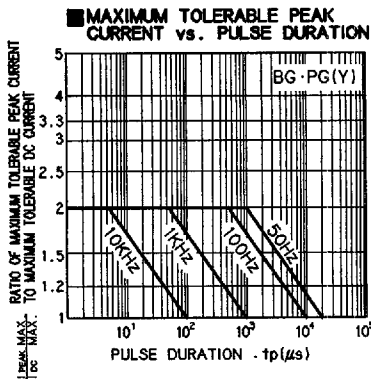
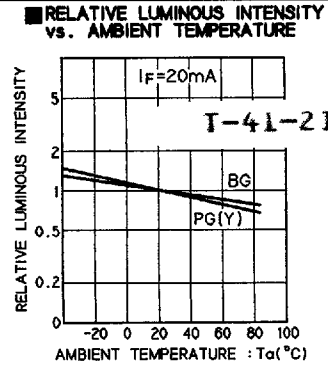
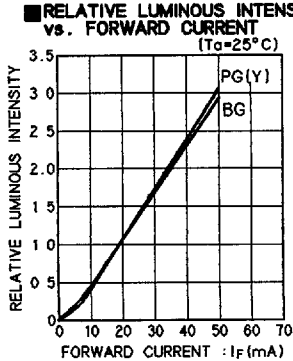
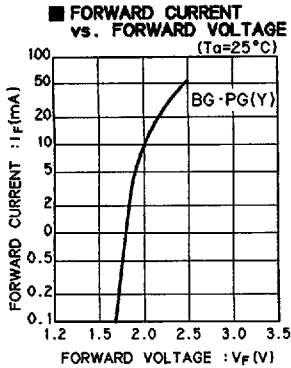


FORWARD VOLTAGE vs. AMBIENT TEMPERATURE



■ GREEN

55E D ■ 4678158 0001480 335 ■ IIST



■ SPATIAL DISTRIBUTION

(E)BG

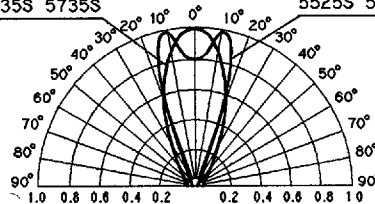
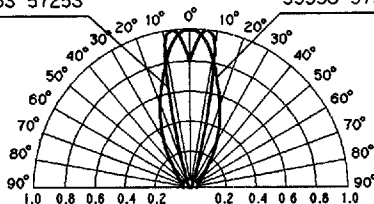
PG(Y)

5505S 5705S
5525S 5725S

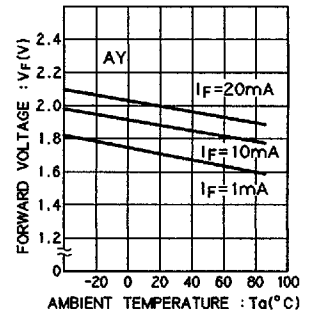
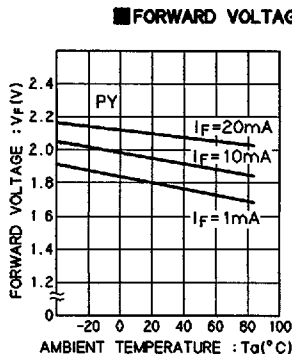
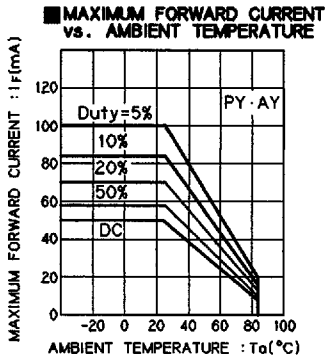
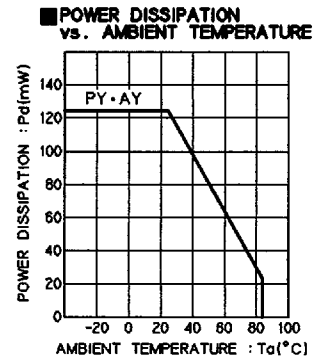
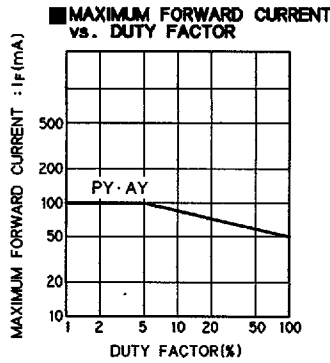
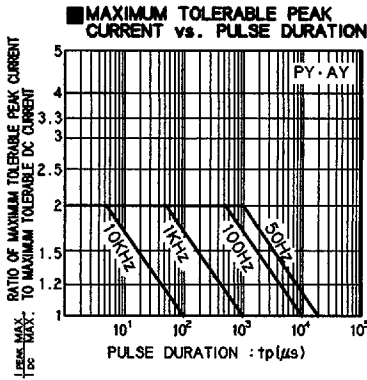
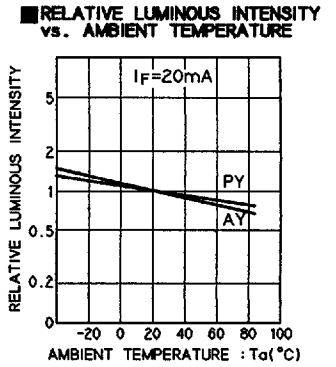
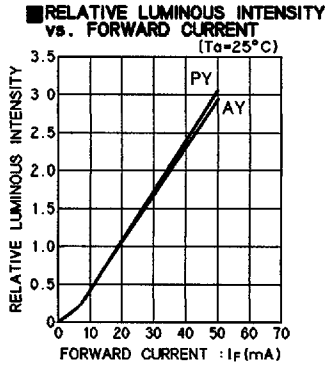
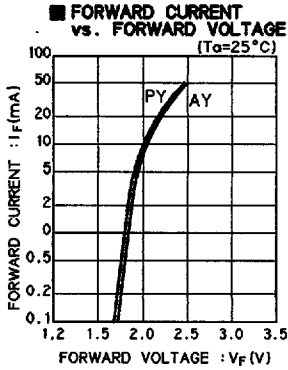
5515S 5715S
5535S 5735S

5535S 5735S

5525S 5725S



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SPATIAL DISTRIBUTION

(E)PY

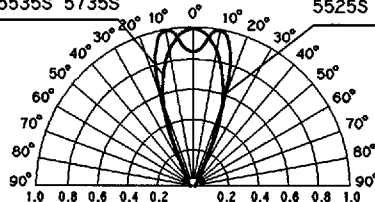
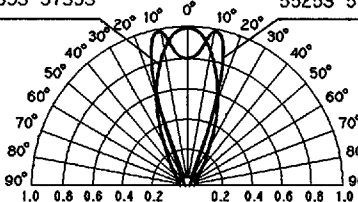
(E)AY

5515S 5715S
5535S 5735S

5505S 5705S
5525S 5725S

5515S 5715S
5535S 5735S

5505S 5705S
5525S 5725S



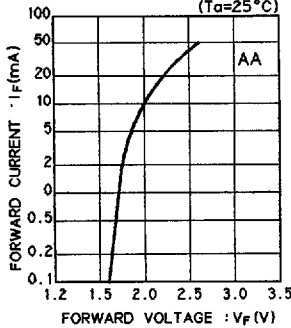
ORANGE

55E D

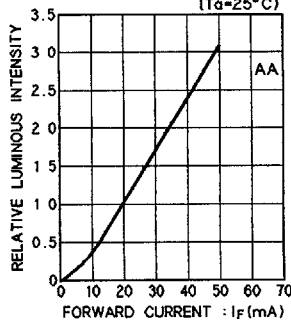
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IIST

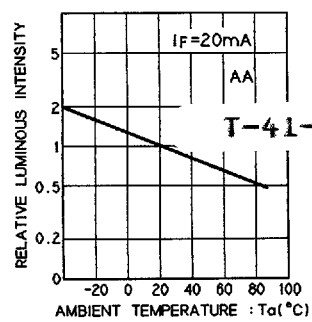
FORWARD CURRENT vs. FORWARD VOLTAGE (Ta=25°C)



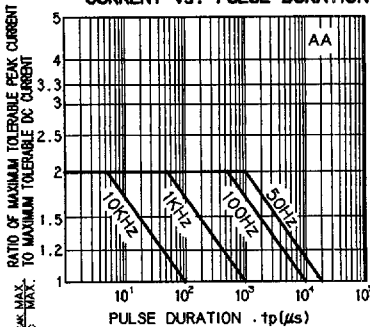
RELATIVE LUMINOUS INTENSITY vs. FORWARD CURRENT (Ta=25°C)



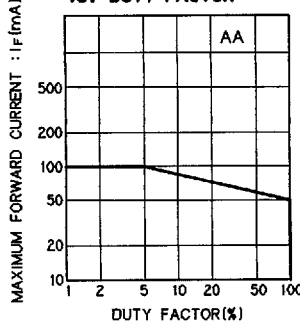
RELATIVE LUMINOUS INTENSITY vs. AMBIENT TEMPERATURE



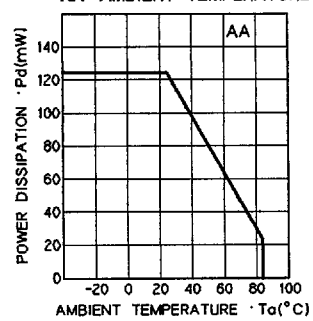
MAXIMUM TOLERABLE PEAK CURRENT vs. PULSE DURATION



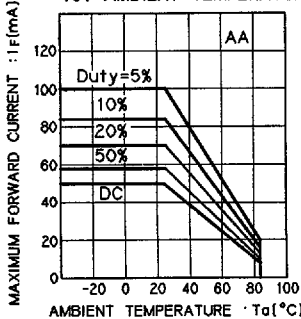
MAXIMUM FORWARD CURRENT vs. DUTY FACTOR



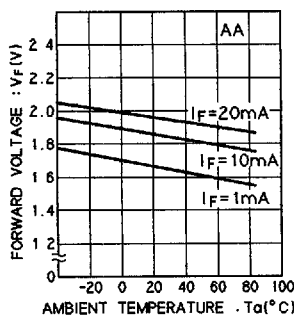
POWER DISSIPATION vs. AMBIENT TEMPERATURE



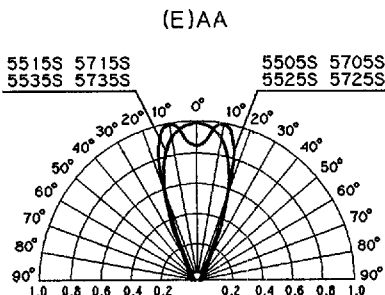
MAXIMUM FORWARD CURRENT vs. AMBIENT TEMPERATURE



FORWARD VOLTAGE vs. AMBIENT TEMPERATURE



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