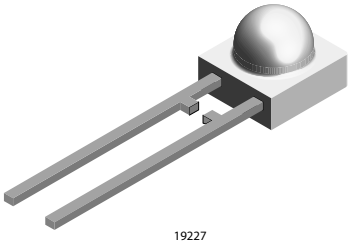
Sideview LED, 5 mm Tinted Diffused



FEATURES

- Even luminance of the emitting surface
- Wide viewing angle
- Yellow and green color categorized
- For DC and pulse operation
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

PRODUCT GROUP AND PACKAGE DATA

- Product group: LED
- Package: side view
- Product series: standard
- Angle of half intensity: ± 80°

APPLICATIONS

- Indicating and illumination purposes

PARTS TABLE

PART	COLOR, LUMINOUS INTENSITY	TECHNOLOGY
TLPR5600	Red, I_V > 1 mcd	GaAsP on GaP
TLPH5600	Red, I_V > 0.63 mcd	GaAsP on GaP
TLPY5600	Yellow, I_V > 0.63 mcd	GaAsP on GaP
TLPG5600	Green, I_V > 0.63 mcd	GaP on GaP
TLPP5600	Pure green, I_V > 0.63 mcd	GaP on GaP

ABSOLUTE MAXIMUM RATINGS[1] TLPR5600, TLPH5600 , TLPY5600 , TLPG5600 , TLPP5600

PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Reverse voltage			V_R	6	V
DC Forward current		TLPR5600	I_F	20	mA
		TLPH5600	I_F	30	mA
		TLPY5600	I_F	30	mA
		TLPG5600	I_F	30	mA
		TLPP5600	I_F	30	mA
Surge forward current	$t_p \leq 10\ \mu s$		I_{FSM}	1	A
Power dissipation	$T_{amb} \leq 60$ °C	TLPR5600	P_V	60	mW
		TLPH5600	P_V	100	mW
		TLPY5600	P_V	100	mW
		TLPG5600	P_V	100	mW
		TLPP5600	P_V	100	mW
Junction temperature			T_j	100	°C
Operating temperature range			T_{amb}	- 40 to + 100	°C
Storage temperature range			T_{stg}	- 55 to + 100	°C
Soldering temperature	t ≤ 5 s, 2 mm from body		T_{sd}	260	°C

ABSOLUTE MAXIMUM RATINGS[1] TLPR5600, TLPH5600 , TLPY5600 , TLPG5600 , TLPP5600					
PARAMETER	**TEST CONDITION**	**PART**	**SYMBOL**	**VALUE**	**UNIT**
Thermal resistance junction/ ambient		TLPR5600	R_{thJA}	500	K
		TLPH5600	R_{thJA}	400	K/W
		TLPY5600	R_{thJA}	400	K/W
		TLPG5600	R_{thJA}	400	K/W
		TLPP5600	R_{thJA}	400	K/W

Note:
[1] T_{amb} = 25 °C, unless otherwise specified

OPTICAL AND ELECTRICAL CHARACTERISTICS[1] TLPR5600, RED						
PARAMETER	**TEST CONDITION**	**SYMBOL**	**MIN**	**TYP.**	**MAX**	**UNIT**
Luminous intensity [2]	I_F = 10 mA	I_V	1	2.5		mcd
Dominant wavelength	I_F = 10 mA	λ_d		630		nm
Peak wavelength	I_F = 10 mA	λ_p		640		nm
Angle of half intensity	I_F = 10 mA	φ		± 80		deg
Forward voltage	I_F = 20 mA	V_F		2	3	V
Reverse voltage	I_R = 10 µA	V_R	6	15		V
Junction capacitance	V_R = 0, f = 1 MHz	C_j		50		pF

Note:
[1] T_{amb} = 25 °C, unless otherwise specified
[2] in one packing unit $I_{Vmin}/I_{Vmax} \leq 0.5$

OPTICAL AND ELECTRICAL CHARACTERISTICS[1] TLPH5600, RED						
PARAMETER	**TEST CONDITION**	**SYMBOL**	**MIN**	**TYP.**	**MAX**	**UNIT**
Luminous intensity [2]	I_F = 10 mA	I_V	0.63	1.5		mcd
Dominant wavelength	I_F = 10 mA	λ_d	612		625	nm
Peak wavelength	I_F = 10 mA	λ_p		635		nm
Angle of half intensity	I_F = 10 mA	φ		± 80		deg
Forward voltage	I_F = 20 mA	V_F		2	3	V
Reverse voltage	I_R = 10 µA	V_R	6	15		V
Junction capacitance	V_R = 0, f = 1 MHz	C_j		50		pF

Note:
[1] T_{amb} = 25 °C, unless otherwise specified
[2] in one packing unit $I_{Vmin}/I_{Vmax} \leq 0.5$

OPTICAL AND ELECTRICAL CHARACTERISTICS[1] TLPY5600, YELLOW						
PARAMETER	**TEST CONDITION**	**SYMBOL**	**MIN**	**TYP.**	**MAX**	**UNIT**
Luminous intensity [2]	I_F = 10 mA	I_V	0.63	1.5		mcd
Dominant wavelength	I_F = 10 mA	λ_d	581		594	nm
Peak wavelength	I_F = 10 mA	λ_p		585		nm
Angle of half intensity	I_F = 10 mA	φ		± 80		deg
Forward voltage	I_F = 20 mA	V_F		2.4	3	V
Reverse voltage	I_R = 10 µA	V_R	6	15		V
Junction capacitance	V_R = 0, f = 1 MHz	C_j		50		pF

Note:
[1] T_{amb} = 25 °C, unless otherwise specified
[2] in one packing unit $I_{Vmin}/I_{Vmax} \leq 0.5$

OPTICAL AND ELECTRICAL CHARACTERISTICS[1] TLPG5600, GREEN						
PARAMETER	**TEST CONDITION**	**SYMBOL**	**MIN**	**TYP.**	**MAX**	**UNIT**
Luminous intensity [2]	I_F = 10 mA	I_V	0.63	1.5		mcd
Dominant wavelength	I_F = 10 mA	λ_d	562		575	nm
Peak wavelength	I_F = 10 mA	λ_p		565		nm
Angle of half intensity	I_F = 10 mA	φ		± 80		deg
Forward voltage	I_F = 20 mA	V_F		2.4	3	V
Reverse voltage	I_R = 10 µA	V_R	6	15		V
Junction capacitance	V_R = 0, f = 1 MHz	C_j		50		pF

Note:
[1] T_{amb} = 25 °C, unless otherwise specified
[2] in one packing unit $I_{Vmin}/I_{Vmax} \leq 0.5$

OPTICAL AND ELECTRICAL CHARACTERISTICS[1] TLPP5600, PURE GREEN						
PARAMETER	**TEST CONDITION**	**SYMBOL**	**MIN**	**TYP.**	**MAX**	**UNIT**
Luminous intensity [2]	I_F = 10 mA	I_V	0.63	1.6		mcd
Dominant wavelength	I_F = 10 mA	λ_d	555		565	nm
Peak wavelength	I_F = 10 mA	λ_p		555		nm
Angle of half intensity	I_F = 10 mA	φ		± 80		deg
Forward voltage	I_F = 20 mA	V_F		2.4	3	V
Reverse voltage	I_R = 10 µA	V_R	6	15		V
Junction capacitance	V_R = 0, f = 1 MHz	C_j		50		pF

Note:
[1] T_{amb} = 25 °C, unless otherwise specified
[2] in one packing unit $I_{Vmin}/I_{Vmax} \leq 0.5$

TYPICAL CHARACTERISTICS

T_{amb} = 25 °C, unless otherwise specified

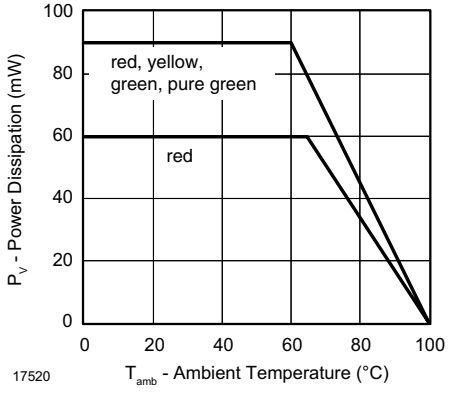


Figure 1. Power Dissipation vs. Ambient Temperature

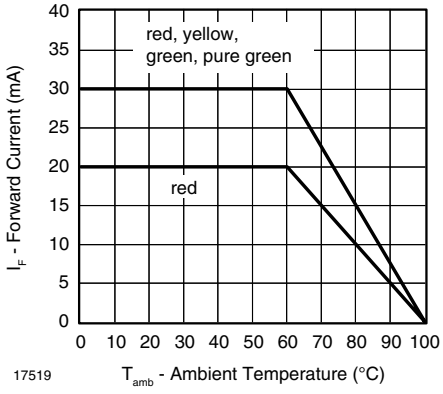


Figure 2. Forward Current vs. Ambient Temperature

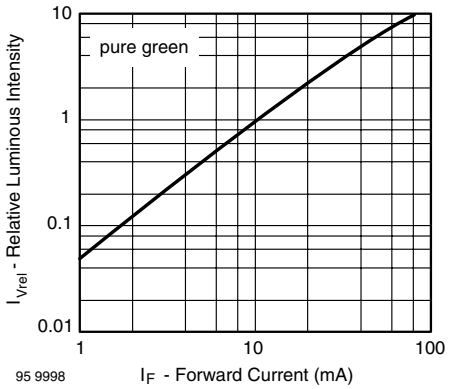


Figure 27. Relative Luminous Intensity vs. Forward Current

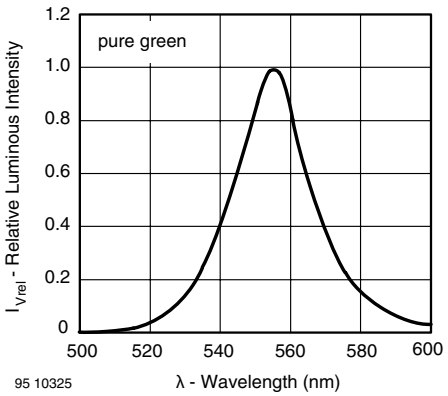
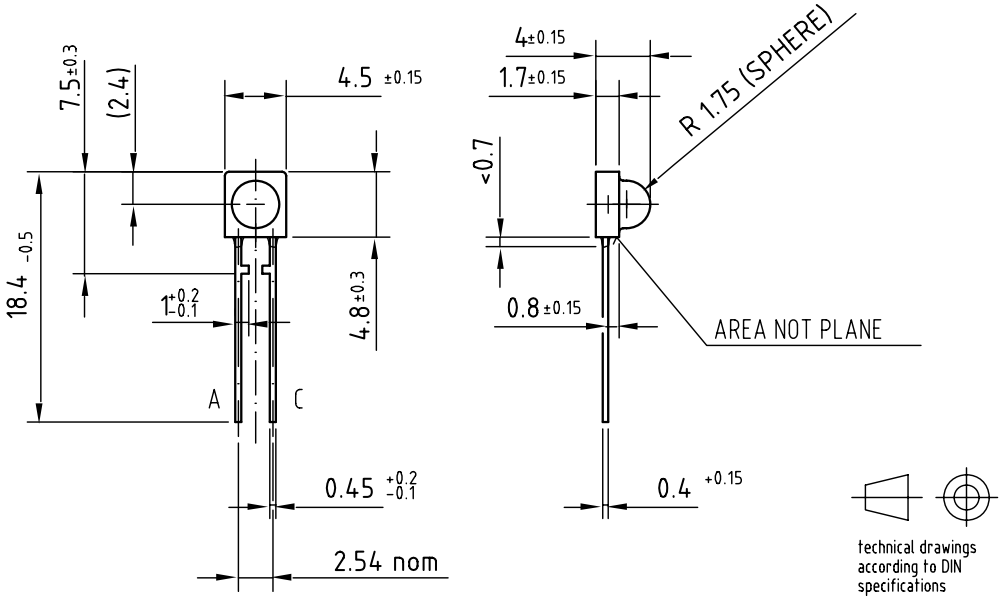


Figure 28. Relative Intensity vs. Wavelength

PACKAGE DIMENSIONS in millimeters



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