Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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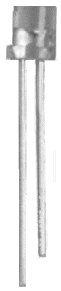
Plastic Infrared Emitting Diode

OP265WPS



Features:

- T-1 (3 mm) package style
- Broad irradiance pattern
- Point source with flat lens
- Higher power output than GaAs at equivalent drive currents
- 850 nm diode

Description:

The **OP265WPS** *point source* model is a flat-lensed 850 nm diode with a *broad* radiation pattern that provides relatively even illumination over a large area. Its stable forward voltage (V_F) vs. temperature characteristic makes this device appropriate for applications where voltage is limited (such as battery operation), while the low rise time/fall time (t_r/t_f) makes it ideal for high-speed operation.

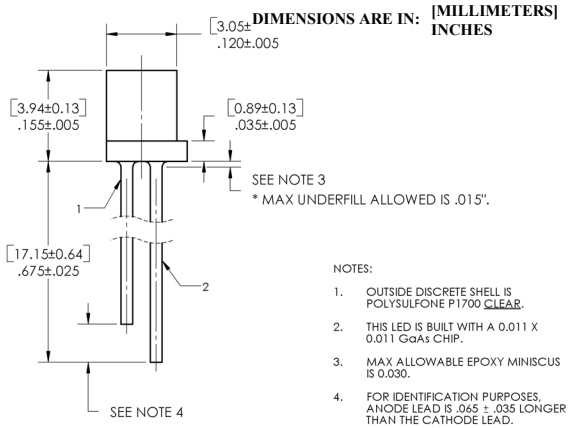
OP265 devices conform to the OP505 and OP535 series devices.

Please refer to Application Bulletins 208 and 210 for additional design information and reliability (degradation) data.

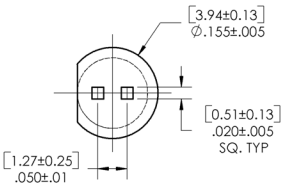
Applications:

- Space-limited applications
- Applications requiring coupling efficiency
- Precision optical designs
- Battery-operated or voltage-limited applications

Ordering Information					
Part Number	**LED Peak Wavelength**	**Output Power (mW/cm²) Min / Max**	**I_F (mA) Typ / Max**	**Total Beam Angle**	**Lead Length**
OP265WPS	850 nm	.055 / .55	20 / 50	120°	0.50"



Pin #	LED
1	Cathode
2	Anode



DISCRETE PIN-OUT

1 CATHODE

2 ANODE

RoHS

CONTAINS POLYSULFONE

To avoid stress cracking, we suggest using ND Industries' **Vibra-Tite** for thread-locking. **Vibra-Tite** evaporates fast without causing structural failure in OPTEK'S molded plastics.

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Electrical Specifications

Absolute Maximum Ratings (T_A = 25° C unless otherwise noted)	
Storage and Operating Temperature Range	-40° C to +100° C
Reverse Voltage	2.0 V
Continuous Forward Current	50 mA
Peak Forward Current (1 µs pulse width, 300 pps)	3.0 A
Lead Soldering Temperature [1/16 inch (1.6 mm) from case for 5 seconds with soldering iron]	260° C(1)
Power Dissipation	100 mW(2)

Notes:
1. RMA flux is recommended. Duration can be extended to 10 second maximum when flow soldering. A maximum of 20 grams force may be applied to the leads when soldering.
2. Derate linearly at 1.33 mW/° C above 25° C.
3. $E_{E(APT)}$ is a measurement of the average apertured radiant incidence upon a sensing area 0.081" (2.06 mm) in diameter, perpendicular to and centered on the mechanical axis of the lens and 0.590" (14.99 mm) from the measurement surface. $E_{E(APT)}$ is not necessarily uniform within the measured area.

Electrical Characteristics (T_A = 25° C unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Input Diode						
$E_{E\ (APT)}$	Apertured Radiant Incidence	2.70	-	-	mW/cm^2	I_F = 20 mA(3)
V_F	Forward Voltage	-	-	1.80	V	I_F = 20 mA
I_R	Reverse Current	-	-	20	µA	V_R= 2 V
λ_P	Wavelength at Peak Emission	-	850	-	nm	I_F = 10 mA
B	Spectral Bandwidth between Half Power Points	-	-	-	nm	I_F = 20 mA

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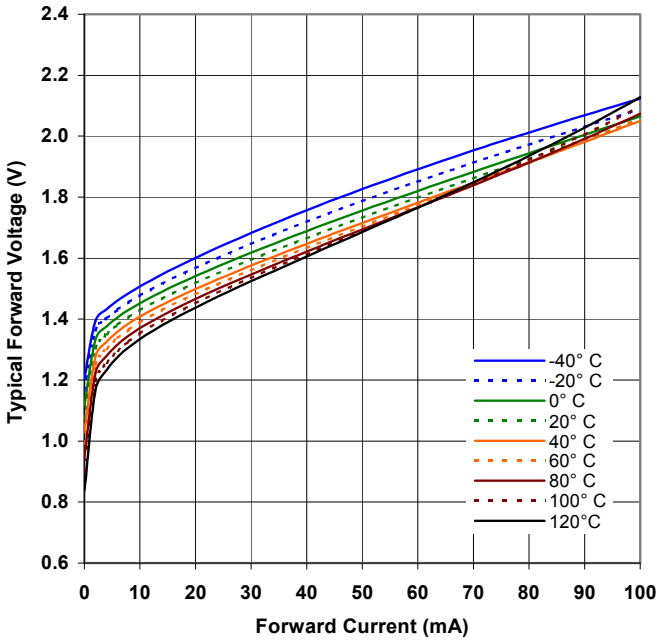
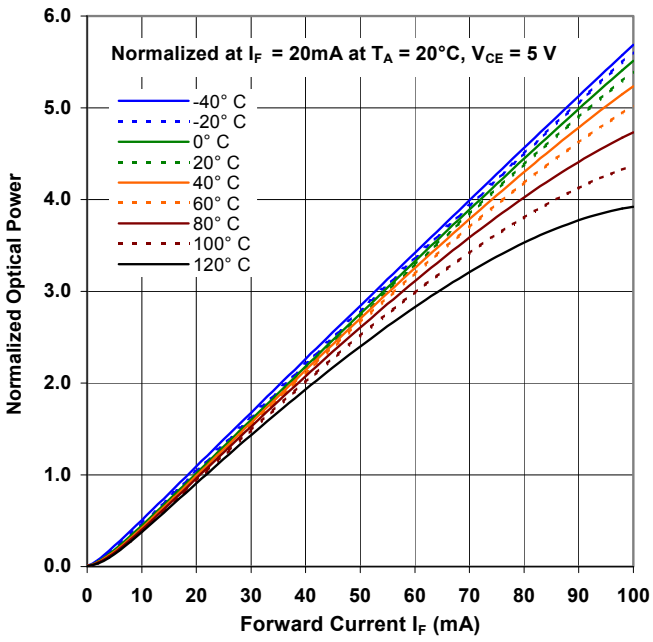
Performance
OP265WPS

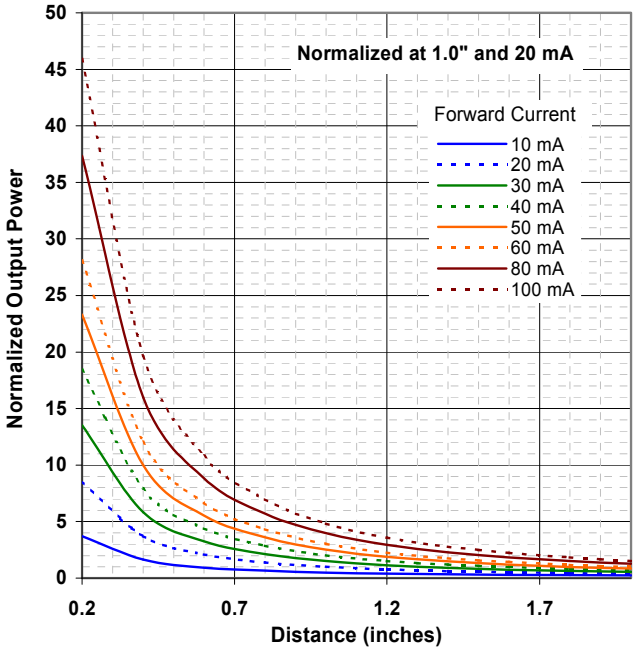
Forward Voltage vs Forward Current vs Temperature



Optical Power vs Forward Current vs Temperature



Distance vs Power vs Forward Current



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