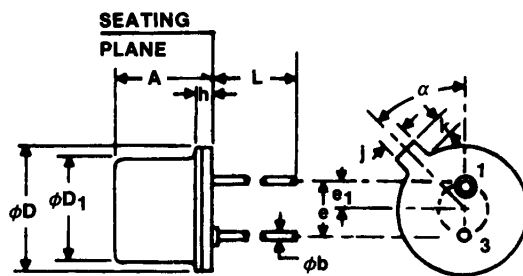


**PACKAGE DIMENSIONS**



ST11331

SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A		.155		3.93	
φb	.016	.021	.407	.533	
φD	.209	.230	5.31	5.84	
φD <sub>1</sub>	.180	.187	4.57	4.77	
e	.100 NOM.		2.54 NOM.		2
e <sub>1</sub>	.050 NOM.		1.27 NOM.		2
h		.030		.76	
j	.031	.044	.79	1.11	
k	.036	.046	.92	1.16	1
L	1.00		25.4		
α	45°	45°	45°	45°	3

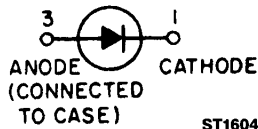
**DESCRIPTION**

The 1N6265 is a 940nm LED in a wide angle, T0-46 package.

**FEATURES**

- Good optical to mechanical alignment
- Mechanically and wavelength matched to TO-18 series phototransistor
- Hermetically sealed package
- High irradiance level
- (\*) indicates JEDEC registered values

**PACKAGE OUTLINE**



NOTES:

1. MEASURED FROM MAXIMUM DIAMETER OF DEVICE.
2. LEADS HAVING MAX. DIAMETER .021" (.533mm) MEASURED IN GAUGING PLANE .054" + .001" - .000 (1.37 + .025 - .000mm) BELOW THE REFERENCE PLANE OF THE DEVICE SHALL BE WITHIN .007" (.778mm) THEIR TRUE POSITION RELATIVE TO A MAXIMUM WIDTH TAB.
3. FROM CENTERLINE TAB.

**TYPICAL CHARACTERISTICS**

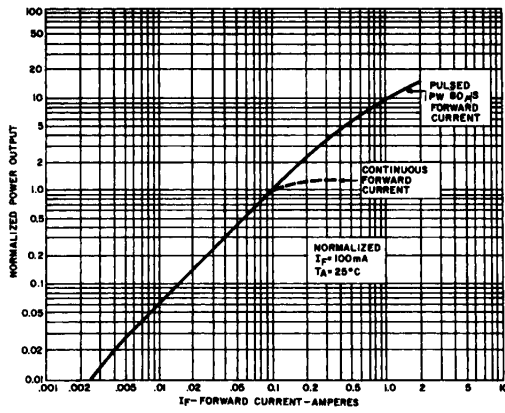


Fig. 1. Power Output vs. Input Current ST1002

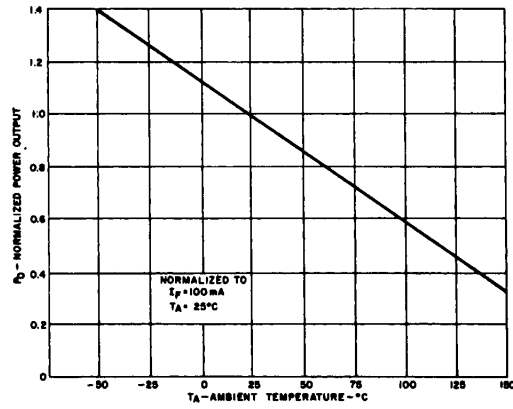


Fig. 2. Power Output vs. Temperature ST1007

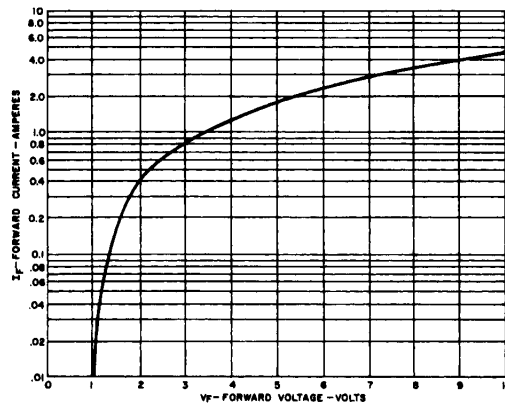


Fig. 3. Forward Voltage vs. Forward Current ST1003

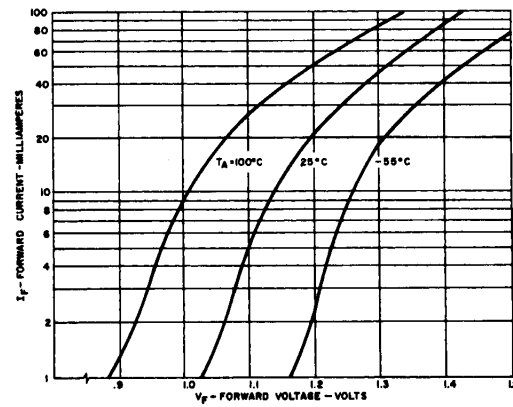


Fig. 4. Forward Voltage vs. Forward Current ST1006

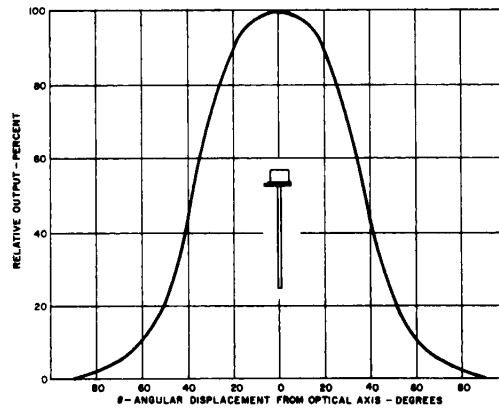


Fig. 6. 1N6265 — Typical Radiation Pattern ST1005



## GaAs INFRARED EMITTING DIODE

<b>ABSOLUTE MAXIMUM RATINGS</b> ( $T_A = 25^\circ\text{C}$ Unless Otherwise Specified)	
*Storage Temperature	-65°C to +150°C
Operating Temperature	-65°C to +125°C
*Soldering:	
*Lead Temperature (Iron)	240°C for 5 sec. <sup>(3,4,5,6)</sup>
*Lead Temperature (Flow)	260°C for 10 sec. <sup>(3,4,6)</sup>
*Continuous Forward Current	100 mA
*Forward Current (pw, 1 $\mu\text{S}$ ; 200 Hz)	10 A
*Reverse Voltage	3 Volts
*Power Dissipation ( $T_A = 25^\circ\text{C}$ )	170 mW <sup>(1)</sup>
Power Dissipation ( $T_C = 25^\circ\text{C}$ )	1.3 W <sup>(2)</sup>

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_A = 25^\circ\text{C}$ Unless Otherwise Specified) (All measurements made under pulse conditions.)						
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
*Forward Voltage	$V_F$	—		1.7	V	$I_F = 100 \text{ mA}$
*Reverse Leakage Current	$I_R$	—		10	$\mu\text{A}$	$V_R = 3 \text{ V}$
*Peak Emission Wavelength	$\lambda_p$	935		955	nm	$I_F = 100 \text{ mA}$
Emission Angle at 1/2 Power	$\theta$		$\pm 40$		Degrees	
*Total Power	$P_o$	6		—	mW	$I_F = 100 \text{ mA}^{(7)}$
Rise Time 0-90% of output	$t_r$		1.0		$\mu\text{S}$	
Fall Time 100-10% of output	$t_f$		1.0		$\mu\text{S}$	

<b>NOTES</b>
1. Derate power dissipation linearly 1.70 mW/°C above 25°C ambient.
2. Derate power dissipation linearly 13.0 mW/°C above 25°C case.
3. RMA flux is recommended.
4. Methanol or Isopropanol alcohols are recommended as cleaning agents.
5. Soldering iron tip 1/16" (1.6 mm) minimum from housing.
6. As long as leads are not under any stress or spring tension.
7. Total power output, $P_o$ , is the total power radiated by the device into a solid angle of $2\pi$ steradians.