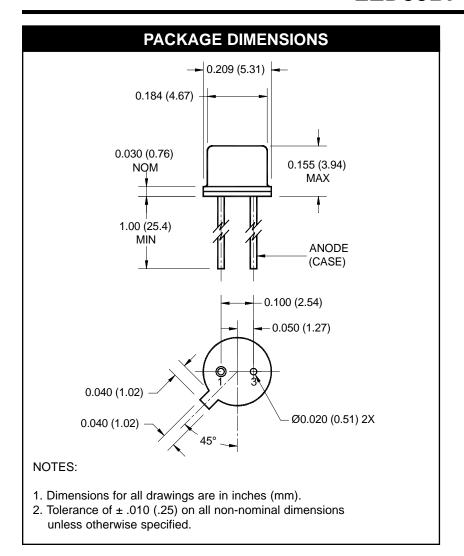
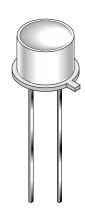
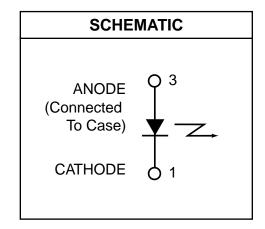
## LED55BF LED55CF LED56F







### **DESCRIPTION**

The LED55BF/LED55CF/LED56F series are 940nm LEDs in a wide angle, TO-46 package.

### **FEATURES**

- · Good optical to mechanical alignment
- Mechanically and wavelength matched to the TO-18 series phototransistor
- · Hermetically sealed package
- High irradiance level



# LED55BF LED55CF LED56F

ABSOLUTE MAXIMUM RATINGS (T <sub>A</sub> = 25°C unless otherwise specified)							
Parameter	Symbol	Rating	Unit				
Operating Temperature	T <sub>OPR</sub>	-65 to +125	°C				
Storage Temperature	T <sub>STG</sub>	-65 to +150	°C				
Soldering Temperature (Iron)(3,4,5 and 6)	T <sub>SOL-I</sub>	240 for 5 sec	°C				
Soldering Temperature (Flow)(3,4 and 6)	T <sub>SOL-F</sub>	260 for 10 sec	°C				
Continuous Forward Current	I <sub>F</sub>	100	mA				
Forward Current (pw, 1µs; 200Hz)	I <sub>F</sub>	10	A				
Reverse Voltage	V <sub>R</sub>	3	V				
Power Dissipation (T <sub>A</sub> = 25°C) <sup>(1)</sup>	P <sub>D</sub>	170	mW				
Power Dissipation (T <sub>C</sub> = 25°C) <sup>(2)</sup>	P <sub>D</sub>	1.3	W				

### NOTE:

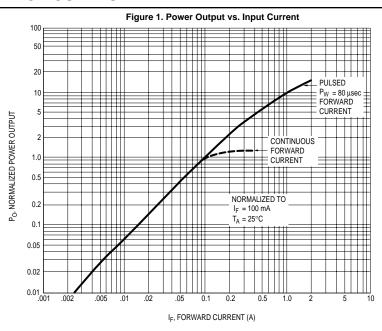
- 1. Derate power dissipation linearly 1.70 mW/°C above 25°C ambient.
- 2. Derate power dissipation linearly 13.0 mW/°C above 25°C case.
- 3. RMA flux is recommended.
- 4. Methanol or isopropyl alcohols are recommended as cleaning agents.
- 5. Soldering iron tip 1/16" (1.6mm) minimum from housing.
- 6. As long as leads are not under any stress or spring tension
- 7. Total power output,  $P_0$ , is the total power radiated by the device into a solid angle of 2  $\pi$  steradians.

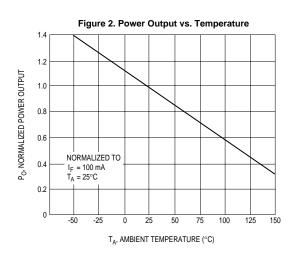
ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C) (All measurements made under pulse conditions)							
PARAMETER	TEST CONDITIONS	SYMBOL	MIN	TYP	MAX	UNITS	
Peak Emission Wavelength	I <sub>F</sub> = 100 mA	$\lambda_{PE}$	_	940	_	nm	
Emission Angle at 1/2 Power		θ	_	±40	_	Deg.	
Forward Voltage	I <sub>F</sub> = 100 mA	$V_{F}$	_	_	1.7	V	
Reverse Leakage Current	V <sub>R</sub> = 3 V	I <sub>R</sub>	_	_	10	μA	
Total Power LED55BF <sup>(7)</sup>	I <sub>F</sub> = 100 mA	Po	3.5	_	_	mW	
Total Power LED55CF <sup>(7)</sup>	I <sub>F</sub> = 100 mA	Po	5.4	_	_	mW	
Total Power LED56F <sup>(7)</sup>	I <sub>F</sub> = 100 mA	Po	1.5	_	_	mW	
Rise Time 0-90% of output		t <sub>r</sub>	_	1.0	_	μs	
Fall Time 100-10% of output		t <sub>f</sub>	_	1.0	_	μs	

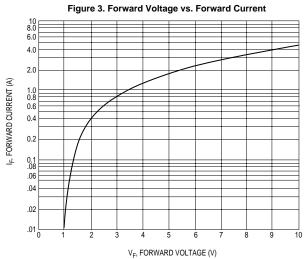


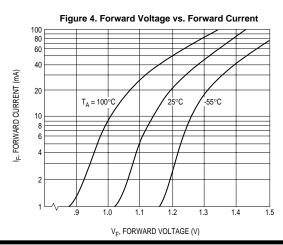
# LED55BF LED55CF LED56F

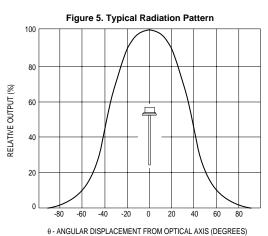
### TYPICAL PERFORMANCE CURVES













## LED55BF LED55CF LED56F

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