

OPTICAL AND ELECTRICAL CHARACTERISTICS (Ta = 25°C)

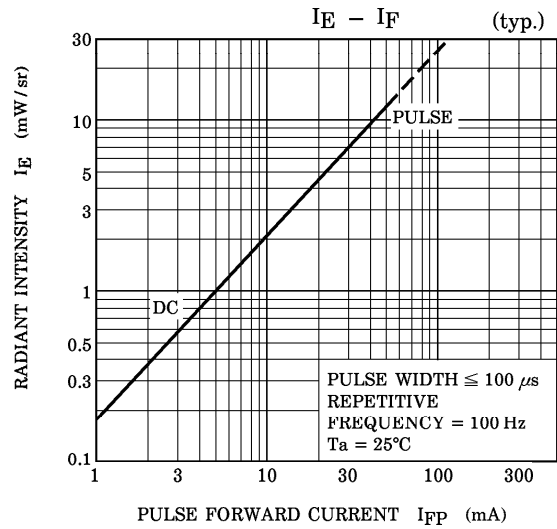
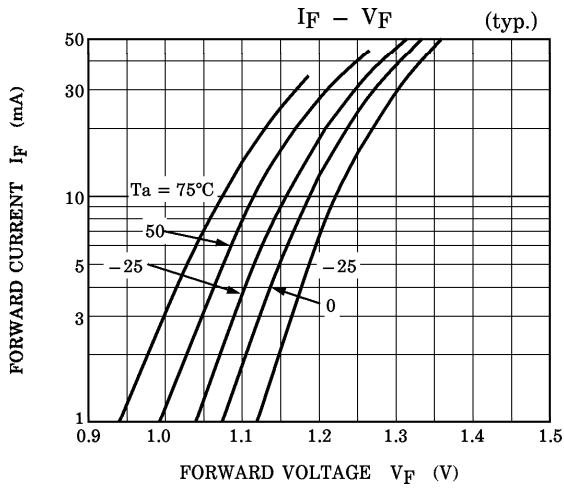
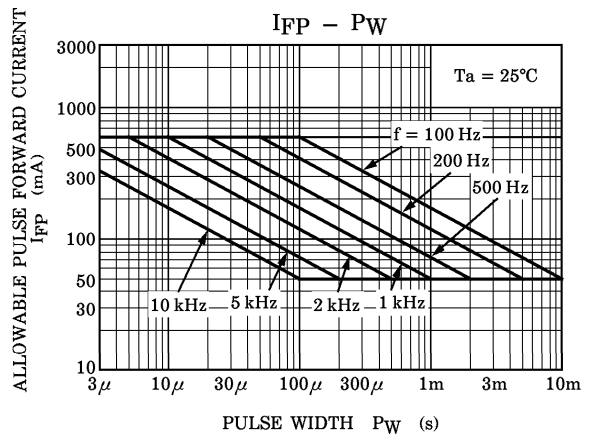
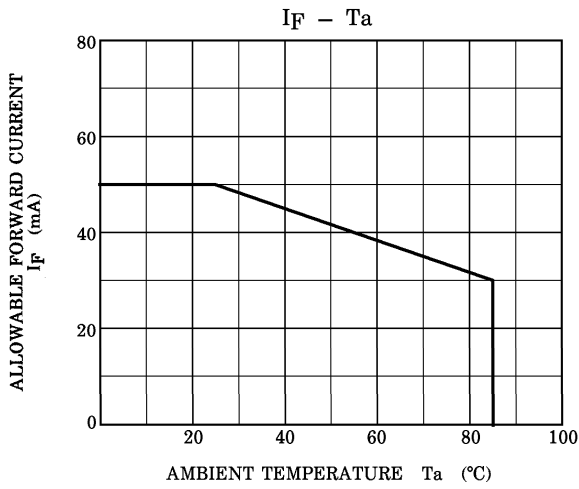
CHARACTERISTIC	SYMBOL	TEST CONDITION	Min	Typ.	Max	UNIT	
Forward Voltage	V _F	I _F = 10 mA	1.0	1.15	1.3	V	
Reverse Current	I _R	V _R = 5 V	—	—	10	μA	
Radiant Intensity	I _E	I _F = 20 mA	TLN117	0.8	—	—	mW / sr
			TLN117 (A)	0.8	—	3	
			TLN117 (B)	2	—	7.5	
			TLN117 (C)	5	—	18.7	
Radiant Power	P _O	I _F = 20 mA	—	2.5	—	mW	
Capacitance	C _T	V _R = 0, f = 1 MHz	—	30	—	pF	
Peak Emission Wavelength	λ _P	I _F = 20 mA	—	940	—	nm	
Spectral Line Half Width	Δλ	I _F = 20 mA	—	50	—	nm	
Half Value Angle	θ _½	I _F = 20 mA	—	±15	—	°	

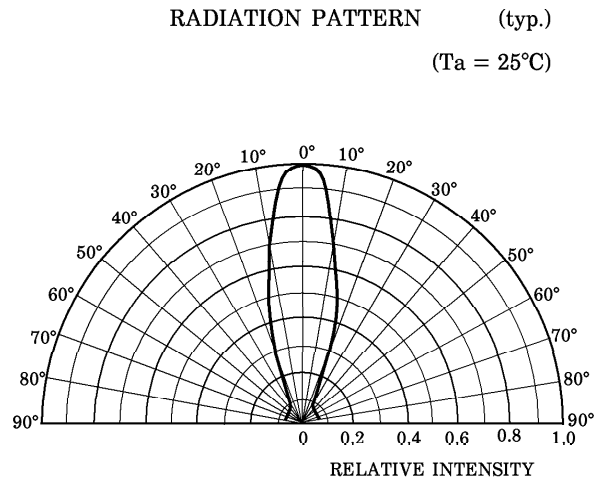
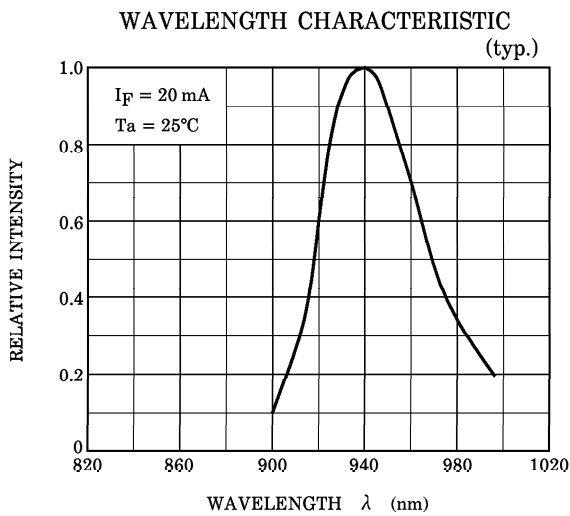
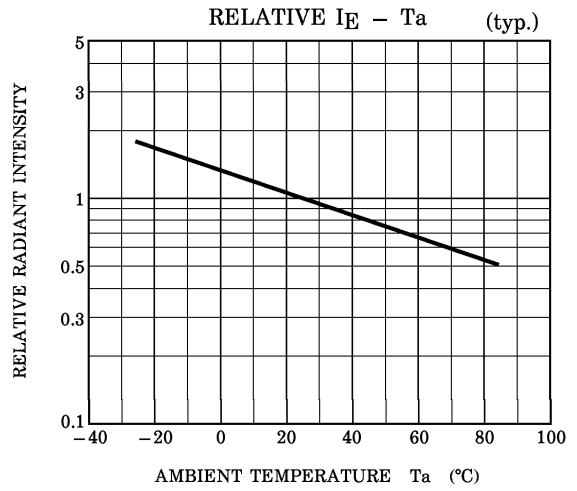
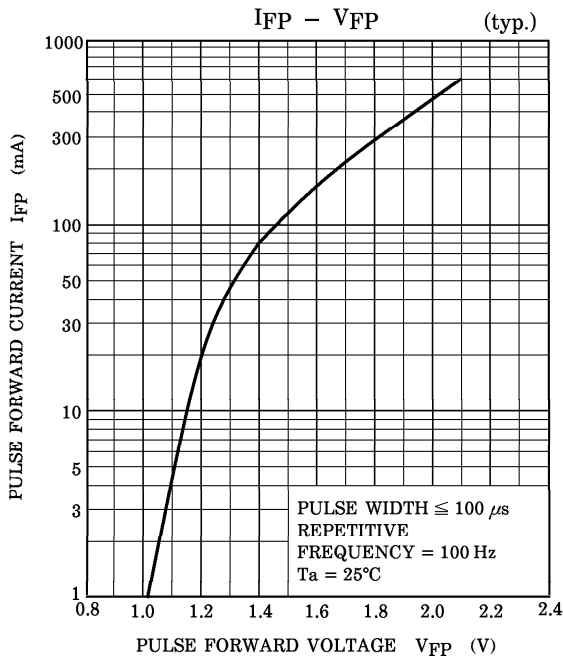
PRECAUTIONS

Please be careful of the followings.

- When forming the leads, bend each lead under the 2 mm from the body of the device.
Soldering must be performed after the leads have been formed.
- Radiation intensity falls over time due to the current which flows in the infrared LED.
When designing a circuit, take into account this change in radiant power over time.
The ratio of fluctuation in radiation intensity to fluctuation in optical output is 1 : 1.

$$\frac{I_E(t)}{I_E(0)} = \frac{P_O(t)}{P_O(0)}$$





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