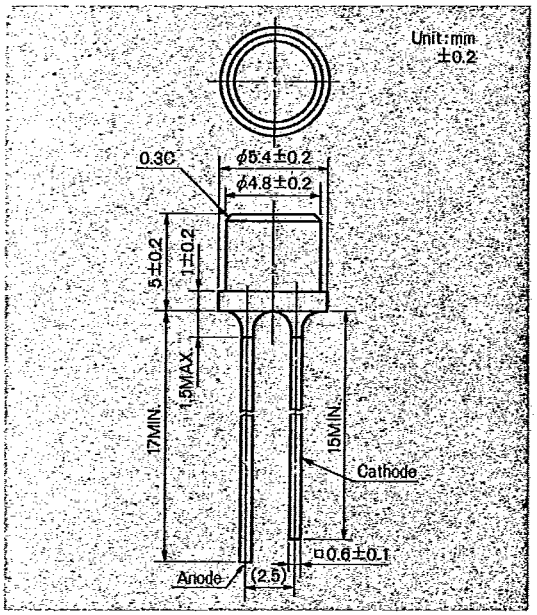
STANLEY

BN401

T-41-11

STANLEY INFRARED LED

■ Package Dimensions



■ FEATURES

(1) High emission output
(Typ. 0.8mW/sr at I_F = 20mA)
(2) High directivity
(3) Short distance from resin-mold surface to emitting position

■ APPLICATIONS

(1) Optical fiber light source
(2) Photoelectric switch
(3) Selector devices
(4) Infrared ray applied devices

■ Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Maximum Ratings	Unit
Power Dissipation	Pd	100	mW
Forward Current	I_F	50	mA
Peak Forward Current*	I_{FM}	1000	mA
Reverse Voltage	V_R	4	V
Operating Temperature	Topr	−30~+85	℃
Storage Temperature	Tstg	−30~+100	℃

*I_{FM} Condition: tw ≤ 100μS, Duty ≤ 1/100

■ Electro-Optical Characteristics (Ta = 25°C)

*At color temp. 2856° K standard tungsten filament bulb.

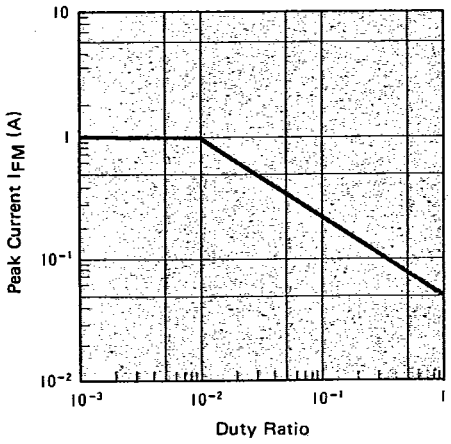
Item	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	V_F	—	1.2	1.5	V	I_F = 20mA
Reverse Current	I_R	—	—	10	μA	V_R = 4V
Junction Capacitance	Co	—	90	—	pF	V = 0, f = 1MHz
Radiant Intensity	I_E	0.4	0.8	—	mW/sr	I_F = 20mA
Peak Spectral Wave Length	λp	—	925	—	nm	I_F = 20mA
Spectral Band width	Δλ	—	50	—	nm	I_F = 20mA

INFRARED LEDS

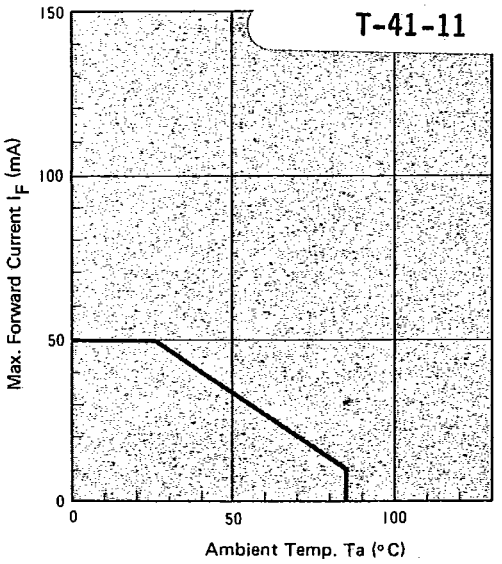
T-41-11

■ Peak Forward Current Vs. Duty Ratio

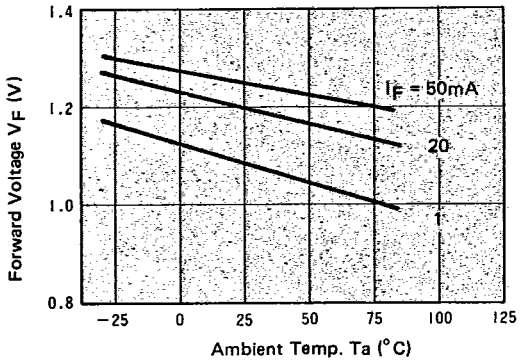
Pulse width ≤ 100μs Ta = 25°C



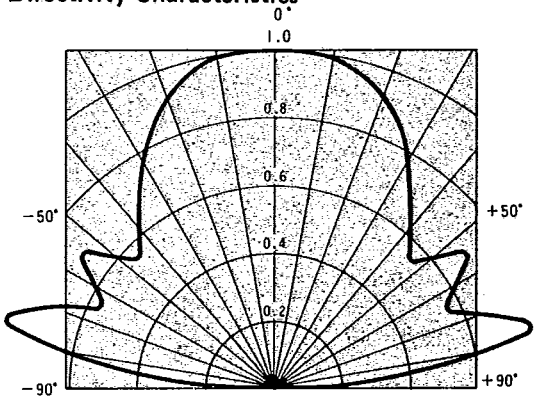
■ Max. Forward Current Vs. Ambient Temp.



■ Forward Voltage Vs. Ambient Temp

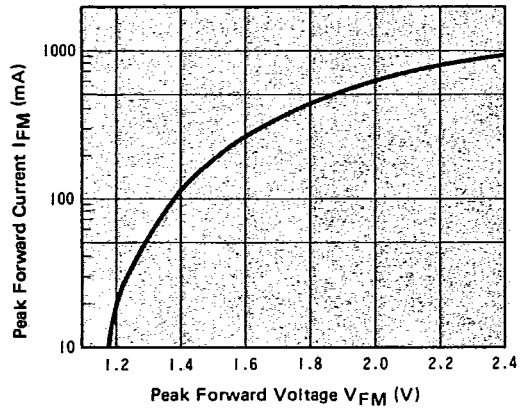


■ Directivity Characteristics

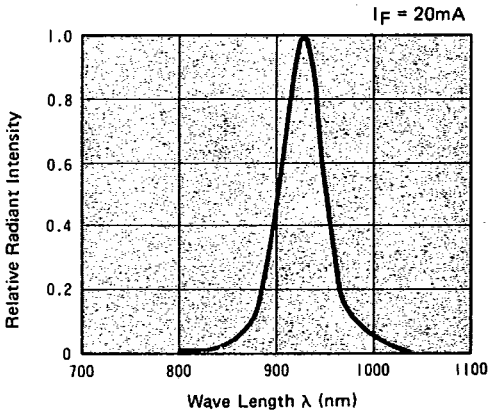


■ Peak Forward Current Vs. Peak Forward Voltage

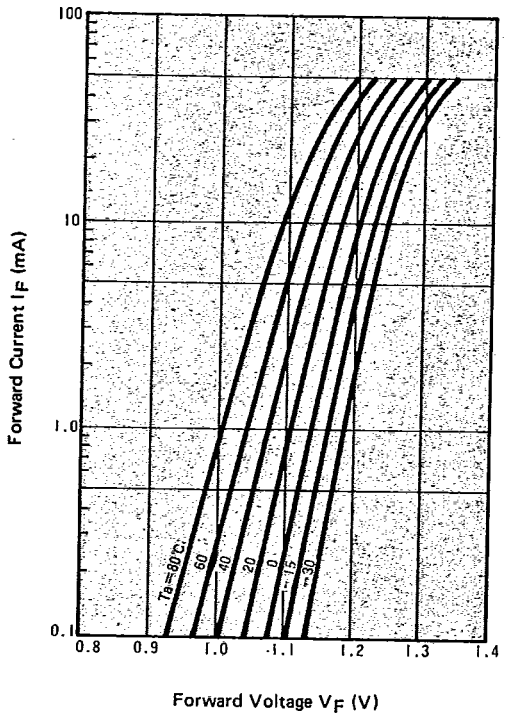
Pulse Width ≤ 100μs
Duty ≤ 1/100



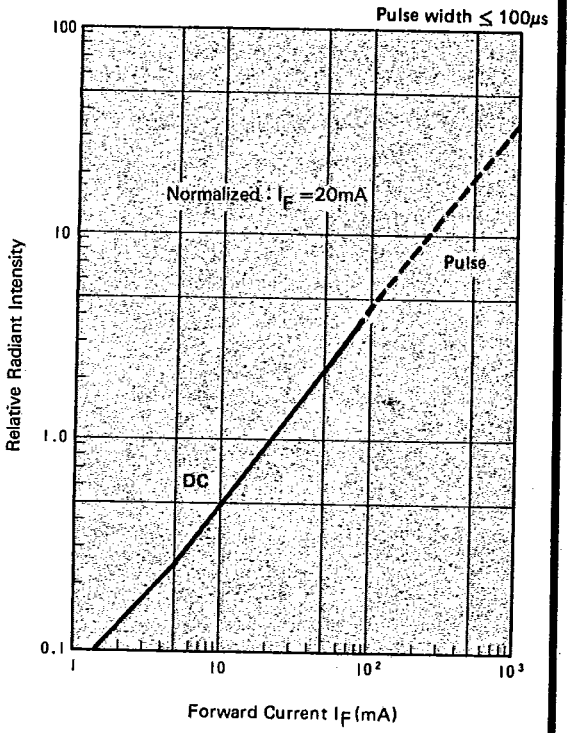
■ Spectral Distribution



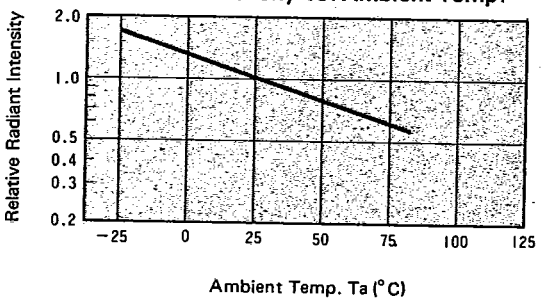
■ Forward Current Vs. Forward Voltage



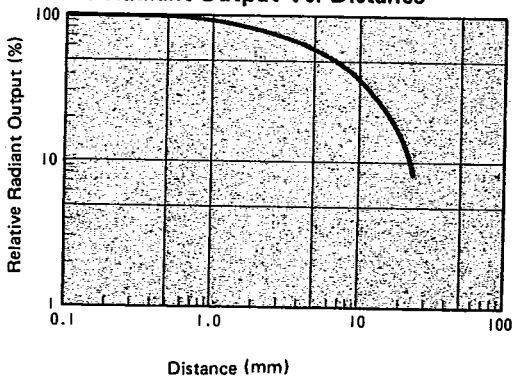
■ Relative Radiant Intensity vs. Forward Current



■ Relative Radiant Intensity Vs. Ambient Temp.



■ Relative Radiant Output Vs. Distance



INFRARED LEDS