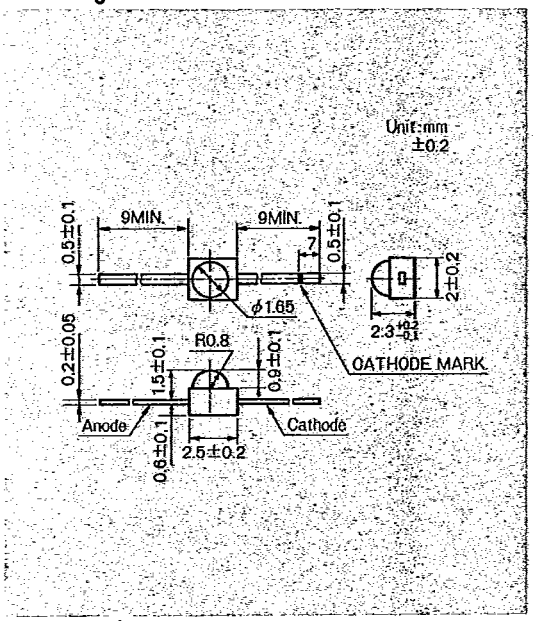
STANLEY

BN501

T-41-11

STANLEY INFRARED LED

■ Package Dimensions



■ FEATURES

(1) High emission output
(Typ. 1.5mW/sr at I_F = 20mA)
(2) Midget resin package 2 x 2.5 mountable at 2.5 mm pitch
(3) High directivity

■ APPLICATIONS

(1) Photoelectric switch
(2) Detection light source for end mark of tape recorder
(3) Edge monitor, level control
(4) Infrared ray applied devices

■ Absolute Maximum Ratings (Ta = 25°C)

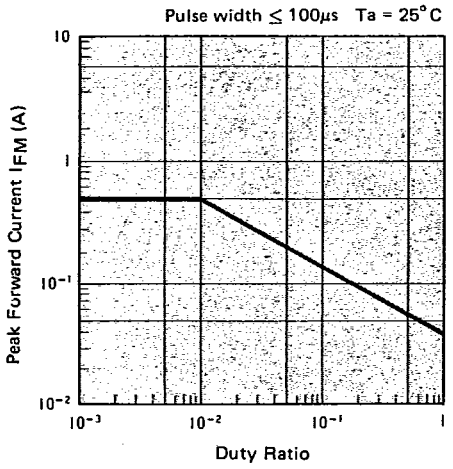
Item	Symbol	Maximum Ratings	Unit
Power Dissipation	Pd	60	mW
Forward Current	I_F	40	mA
Peak Forward Current*	I_{FM}	500	mA
Reverse Voltage	V_R	4	V
Operating Temperature	Topr	−30 ~ +85	℃
Storage Temperature	Tstg	−30 ~ +100	℃

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

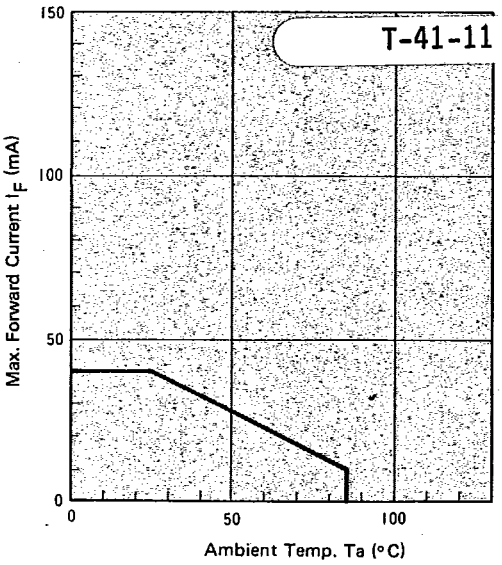
■ Electro-Optical Characteristics (Ta = 25°C)

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	0.5	1.5	—	mW/sr	I_F = 20mA
Peak Spectral Wave Length	λp	—	925	—	nm	I_F = 20mA
Spectral Band width	Δλ	—	50	—	nm	I_F = 20mA

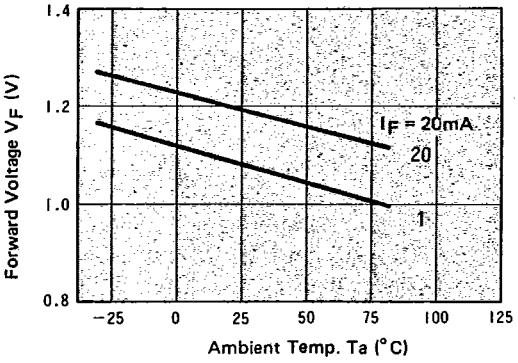
■ Peak Forward Current Vs. Duty Ratio



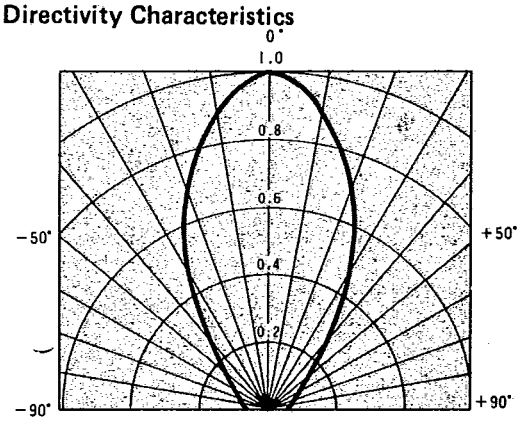
■ Max. Forward Current Vs. Ambient Temp.



■ Forward Voltage Vs. Ambient Temp.

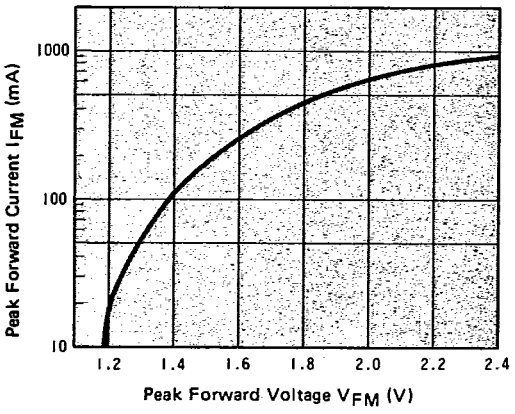


■ Directivity Characteristics

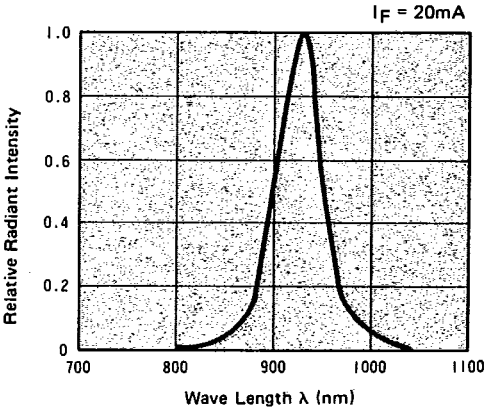


■ Peak Forward Current Vs. Peak Forward Voltage

Pulse width ≤ 100μs
Duty ≤ 1/100

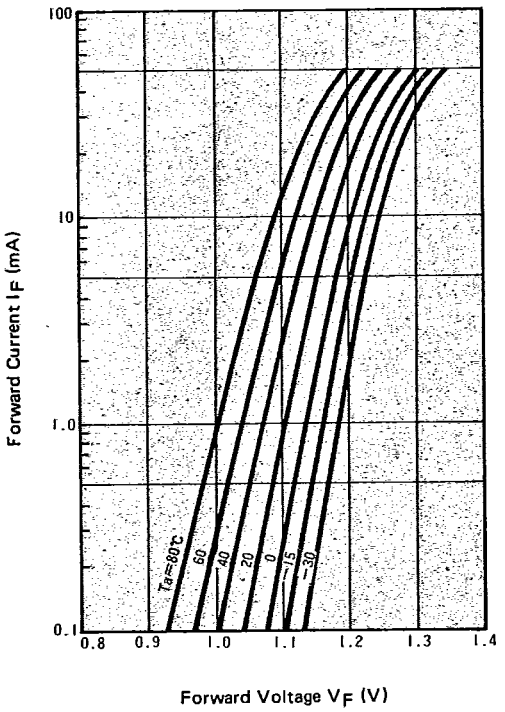


■ Spectral Distribution

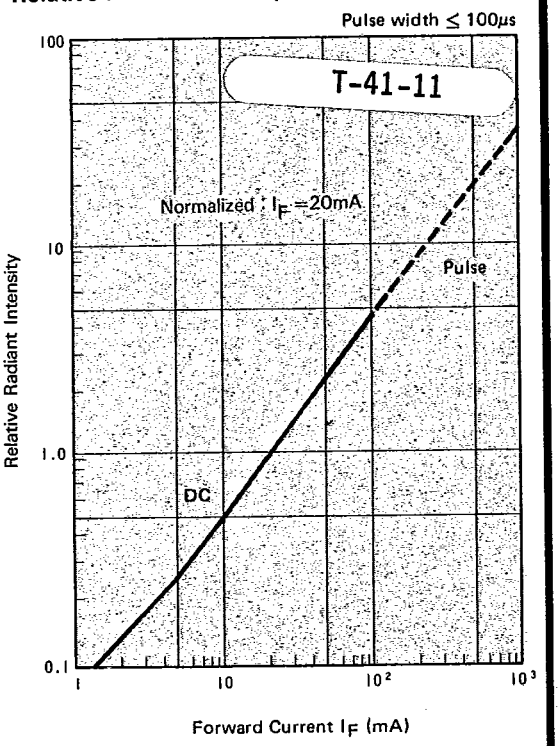


INFRARED LEDS

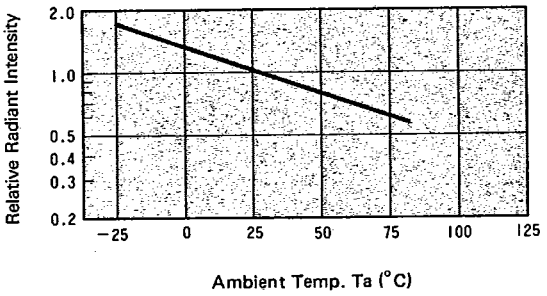
■ Forward Current Vs. Forward Voltage



■ Relative Radiant Intensity Vs. Forward Current



■ Relative Radiant Intensity Vs. Ambient Temp.



■ Relative Radiant Output Vs. Distance