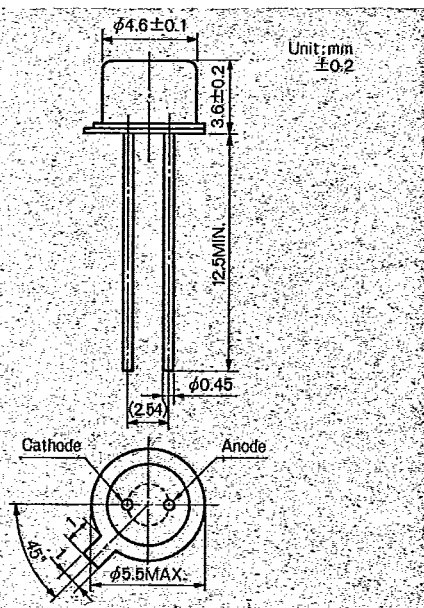


STANLEY**BN201**

T-41-11

**STANLEY
INFRARED LED****■ Package Dimensions****■ FEATURES**

- (1) High emission output
(Typ. 0.3mW/sr at $I_F = 20\text{mA}$)
- (2) Non directivity type
- (3) Hermetic sealing TO-18, High reliability

■ APPLICATIONS

- (1) Photoelectric switch, photoelectric counter
- (2) Card and tape readers
- (3) Edge monitor, Level control
- (4) Smoke detector, photoisolator
- (5) Infrared ray applied devices

■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

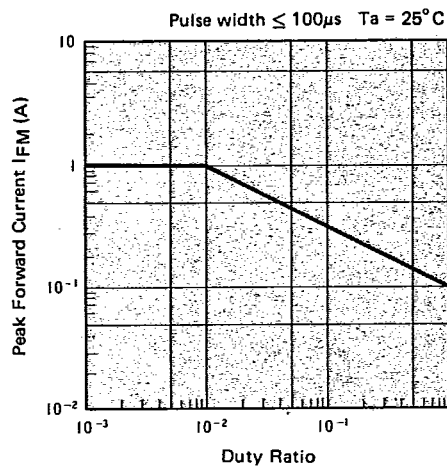
Item	Symbol	Maximum Ratings	Unit
Power Dissipation	P_d	150	mW
Forward Current	I_F	100	mA
Peak Forward Current*	I_{FM}	1000	mA
Reverse Voltage	V_R	4	V
Operating Temperature	T_{opr}	$-30 \sim +125$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-30 \sim +125$	$^\circ\text{C}$

* I_{FM} Condition: $t_w \leq 100\mu\text{s}$, Duty $\leq 1/100$ **■ Electro-Optical Characteristics ($T_a = 25^\circ\text{C}$)**

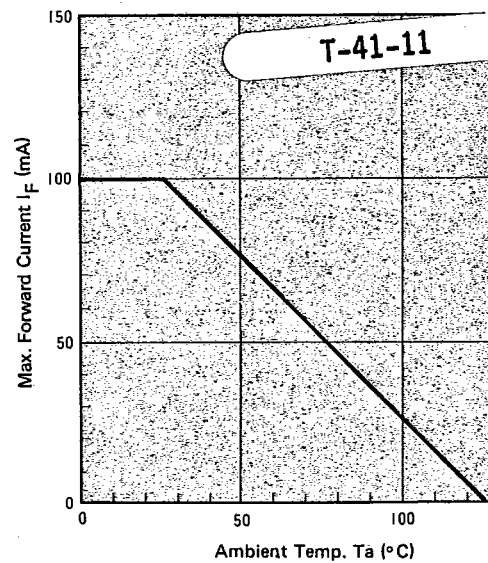
Item	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	V_F	—	1.2	1.5	V	$I_F = 20\text{mA}$
Reverse Current	I_R	—	—	10	μA	$V_R = 4\text{V}$
Junction Capacitance	C_o	—	90	—	pF	$V = 0$, $f = 1\text{MHz}$
Radiant Intensity	I_E	0.15	0.3	—	mW/sr	$I_F = 20\text{mA}$
Peak Spectral Wave Length	λ_p	—	925	—	nm	$I_F = 20\text{mA}$
Spectral Band width	$\Delta\lambda$	—	50	—	nm	$I_F = 20\text{mA}$

INFRARED
LED

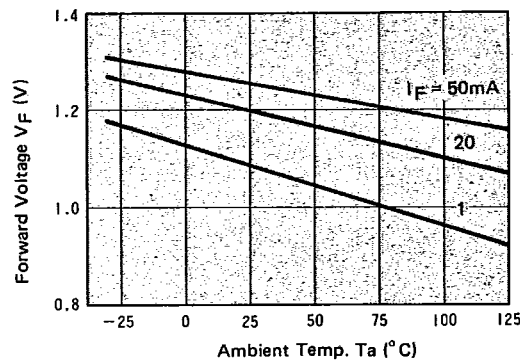
■ **Peak Forward Current Vs. Duty Ratio**



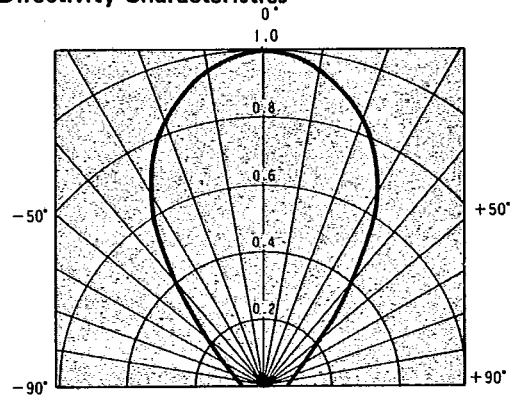
■ **Max. Forward Current Vs. Ambient Temp.**



■ **Forward Voltage Vs. Ambient Temp.**

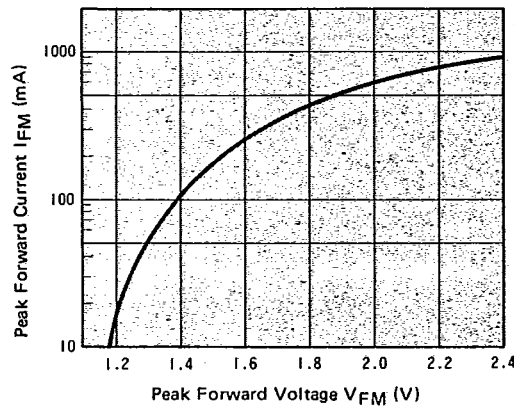


■ **Directivity Characteristics**

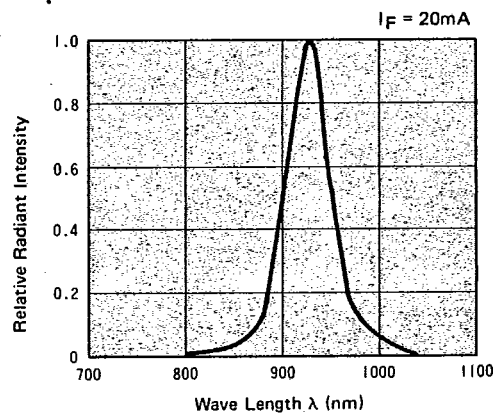


■ **Peak Forward Current Vs. Peak Forward Voltage**

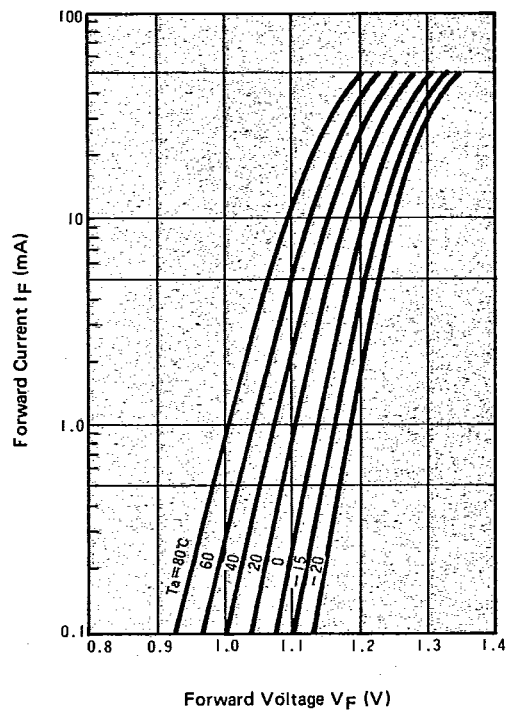
Pulse width $\leq 100\mu s$
Duty $\leq 1/100$



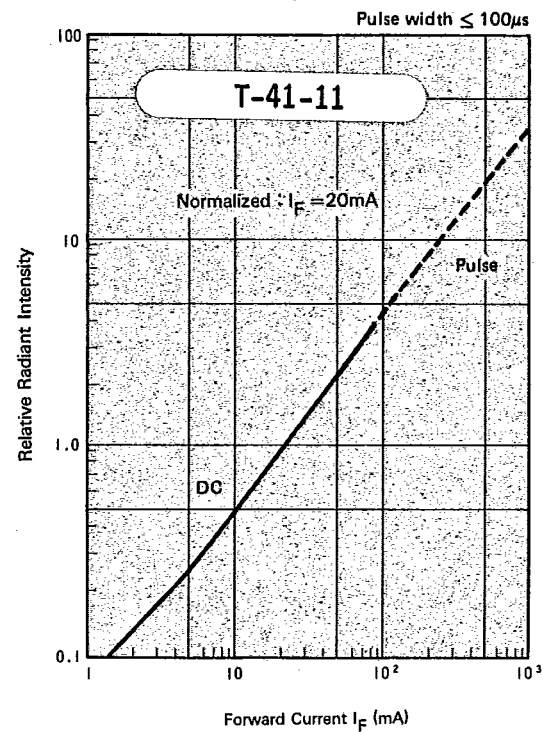
■ **Spectral Distribution**



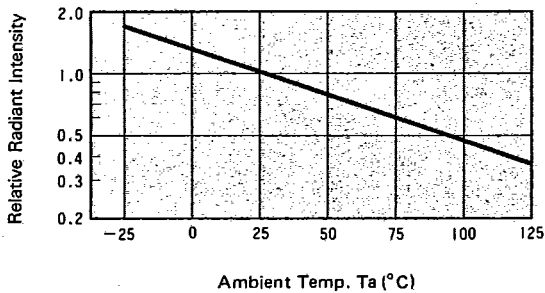
■ Forward Current Vs. Forward Voltage



■ Relative Radiant Intensity Vs. Forward Current



■ Relative Radiant Intensity Vs. Ambient Temp.



■ Relative Radiant Output Vs. Distance

