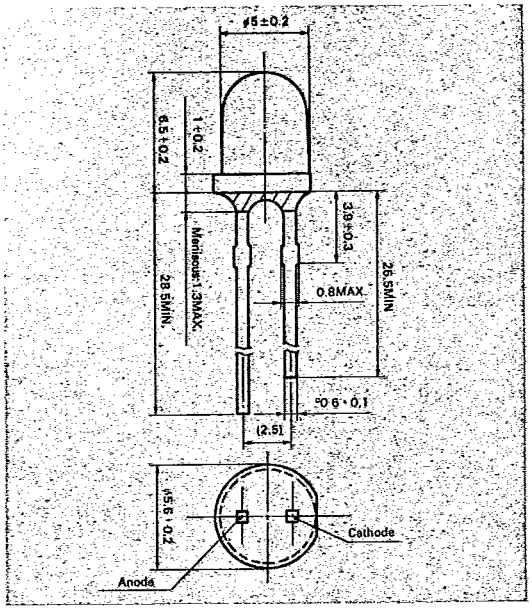
STANLEY

CN304

T-41-13

STANLEY INFRARED LED

■ Package Dimensions (Unit : mm±0.2)



■ FEATURES

(1) Ultra-high radiant power GaAlAs type (Po=9mW TYP.)
(2) 880nm peak wavelenghth
(3) Ultra-highspeed response
(4) Wide directivity (△θ=35deg.)

■ APPLICATIONS

(1) Photosensors
(2) Photoswitches
(3) Rotary encoders
(4) Wireless remote control

■ Absolute Maximum Ratings (Ta = 25°C)

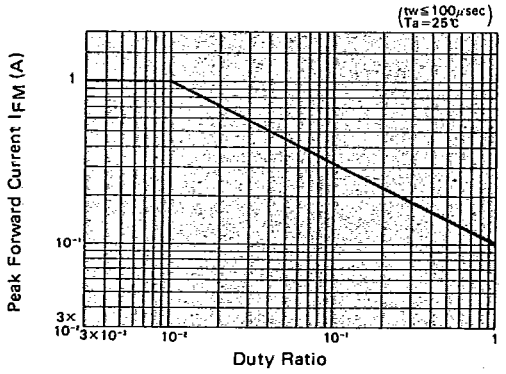
Item	Symbol	Maximum Ratings	Unit
Power Dissipation	Pd	150	mW
Forward Current	I_F	100	mA
Peak Forward Current*	I_{FM}	1000	mA
Reverse Voltage	V_R	5	V
Operating Temperature	Topr	−30 ~ + 85	℃
Storage Temperature	Tstg	−30 ~ +100	℃

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

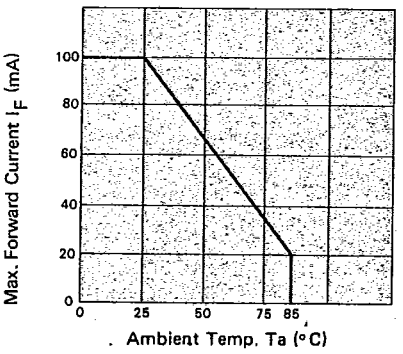
■ Electro-Optical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ.	Max.	Unit	Conditions
Forward Voltage	V_F	—	1.45	1.5	V	I_F=50mA
Reverse Current	I_R	—	—	10	μA	V_R=5V
Junction Capacitance	C_O	—	20	—	pF	V=0V、f=1MHz
Radiant Intensity	I_E	10	20	—	mW/sr	I_F=50mA
Peak Spectral Wave Length	λp	—	880	—	nm	I_F=50mA
Spectral Band width	Δλ	—	65	—	nm	I_F=50mA
Half-Intensity Directional Angle	Δθ	—	35	—	deg.	I_F=50mA

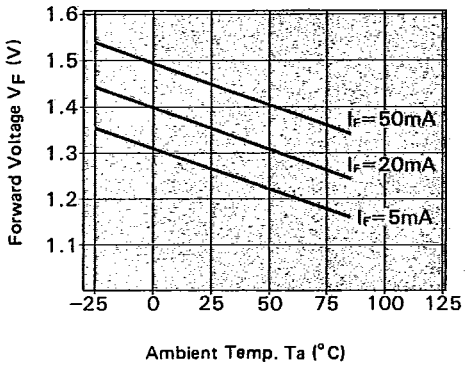
■ Peak Forward Current Vs. Duty Ratio



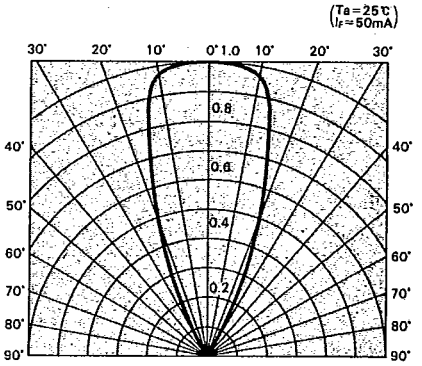
■ Max. Forward Current Vs. Ambient Temp.



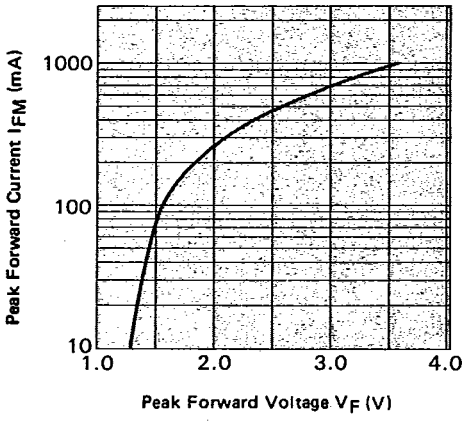
■ Forward Voltage Vs. Ambient Temp.



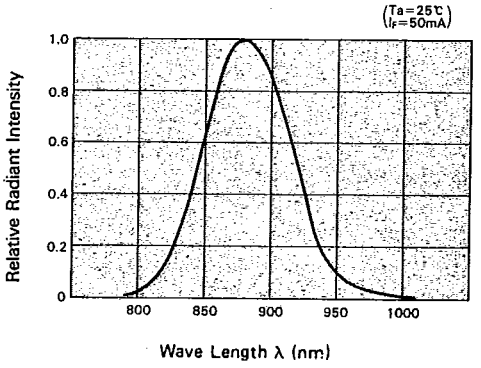
■ Directivity Characteristics



■ Peak Forward Current Vs. Peak Forward Voltage



■ Spectral Distribution



INFRARED LEDS

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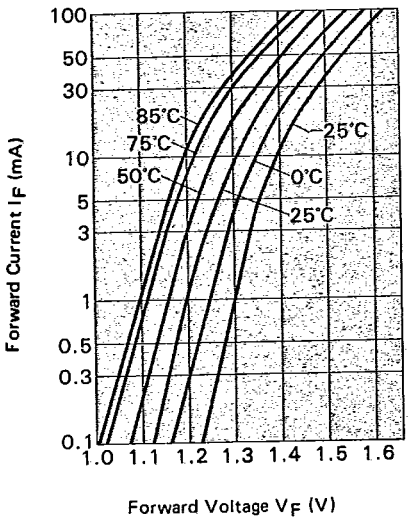
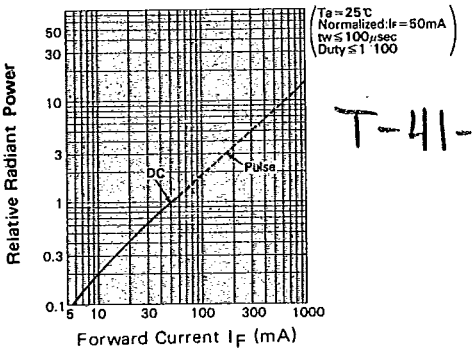
■ Forward Current Vs. Forward Voltage



■ Relative Radiant Power Vs. Forward Current



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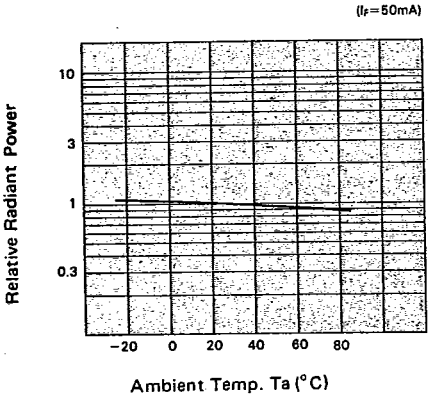
■ Relative Radiant Power Vs. Ambient Temp.



■ Relative Radiant Intensity Vs. Distance