■ INFRARED LED

DN1102W

■ Absolute Maximum Rating

Ta = 25°C

Part No.	Material	Power Dissipation Pd	Forward Current I_F	Derating※1 ΔI_{FM}	Peak Forward Current※2 I_{FM}	Reverse Voltage V_R	Operating Temperature Topr	Storage Temperature Tstg
DN1102W	GaAlAs	75	50	0.67	300	5	-30 ~ +85	-40 ~ +100
Units		mW	mA	mA/°C	mA	V	°C	°C

※1 The current derating for operation applies when temperature is above 25°C.
※2 I_{FM} Condition : tw ≦ 100μs, Duty ≦ 1/100

■ Electro-Optical Characteristics

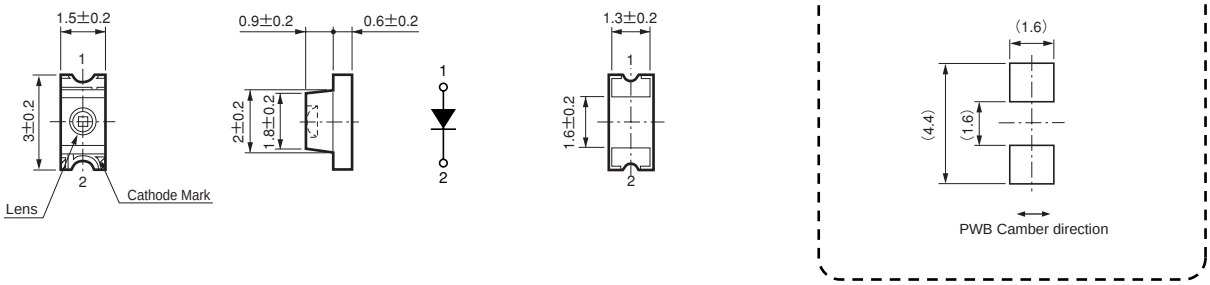
Ta = 25°C

Part No.	Foward Voltage V_F			Reverse Current I_R		Axial Radiant Intensity I_E			Total Power Po		Wavelength			Cut-off Frequency※3 fc			Response Time tr·tf	
	TYP	MAX	I_F	MAX	V_R	MIN	TYP	I_F	TYP	I_F	λp TYP	Δλ TYP	I_F	MIN	TYP	I_F	TYP	I_F
DN1102W	1.45	1.8	20	100	5	0.8	1.6	20	4	20	850	40	20	—	12	20	30	20
Units	V	V	mA	μA	V	mW/sr	mW/sr	mA	mW	mA	nm	nm	mA	MHz	MHz	mA	ns	mA

※3 fc Condition : I_F=20mA$_{DC}$±5mA, -3dB from 0.1MHz

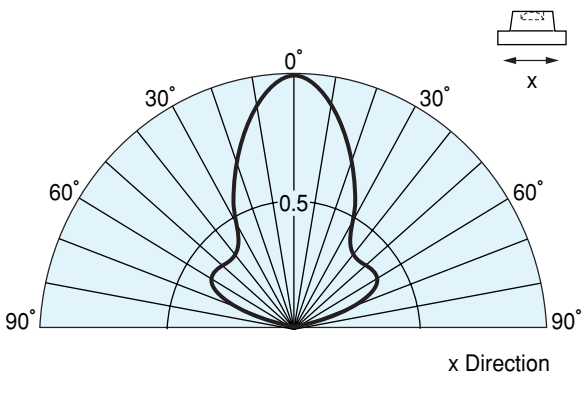
■ Package Dimensions

Unit : mm



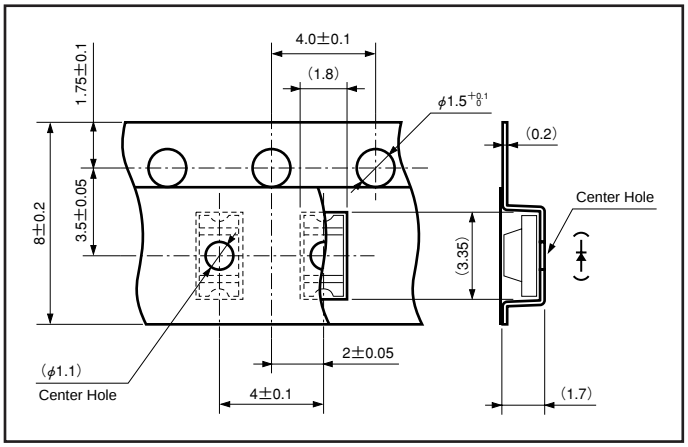
■ Spatial Distribution

Ta = 25°C



■ Taping Specification

Unit : mm



∗ Quantity 2,500 pcs/Reel

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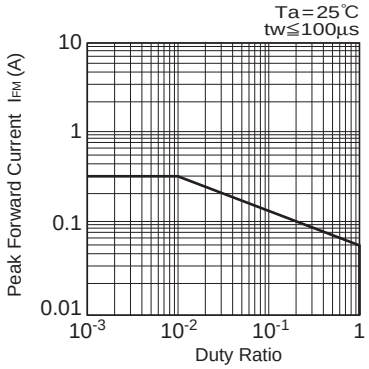
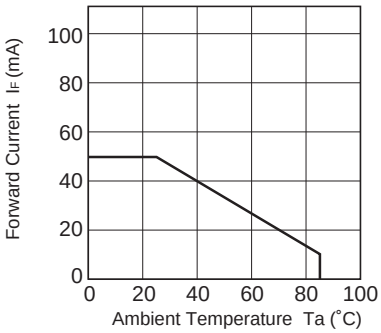
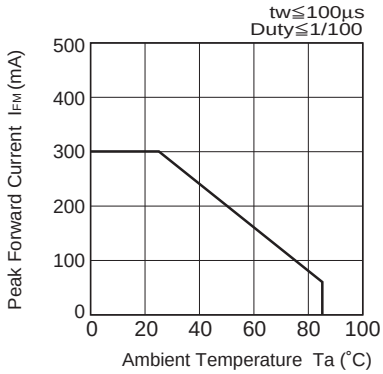
■ Peak Forward Current vs. Duty Ratio



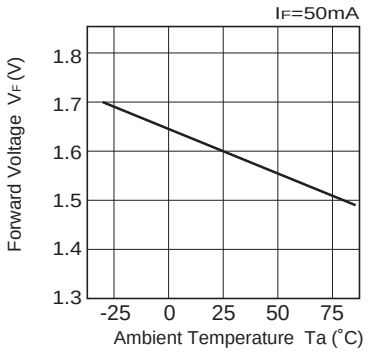
■ Ambient Temperature vs. Forward Current



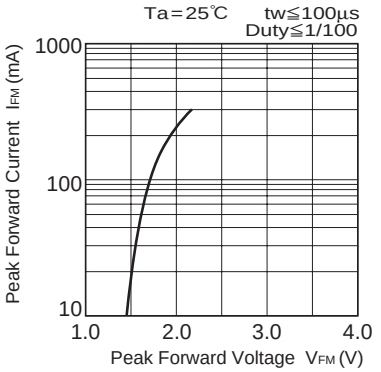
■ Ambient Temperature vs. Peak Forward Current



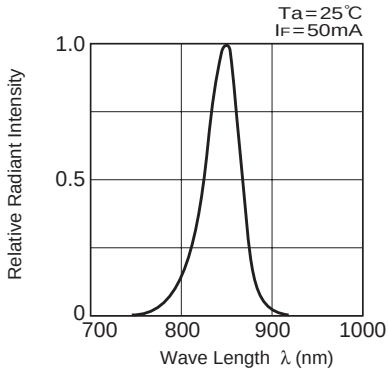
■ Ambient Temperature vs. Forward Voltage



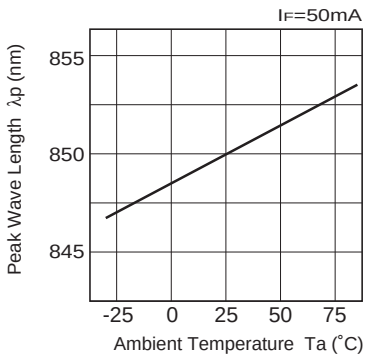
■ Peak Forward Current vs. Peak Forward Voltage



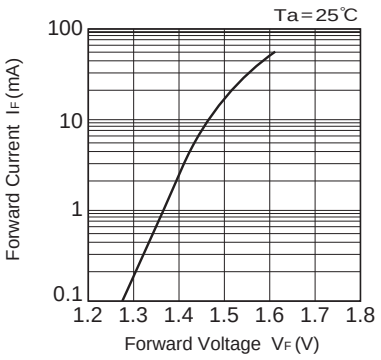
■ Spectral Distribution



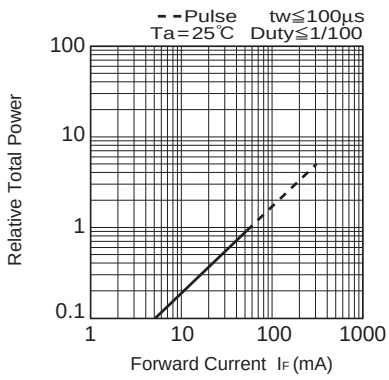
■ Ambient Temperature vs. Peak Wave Length



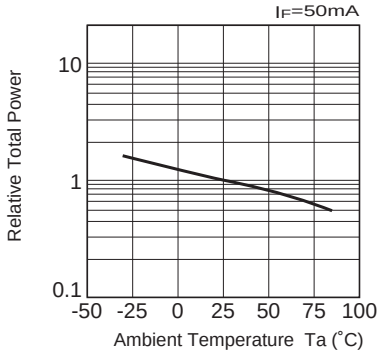
■ Forward Current vs. Forward Voltage



■ Forward Current vs. Relative Total Power



■ Ambient Temperature vs. Relative Total Power



■ Frequency