



■ Absolute Maximum Ratings

Ta = 25°C

		Red	Green	Orange	Unit
		NAR / NKR	NAG / NKG	NAA / NKA	
Power Dissipation	Pb	60	63	63	mW
Forward Current	IF	30	25	25	mA
Peak Forward Current	IFM	120	100	100	mA
Reverse Voltage	VR	4	4	4	V
Operating Temp.	Topr	-40~+85	-40~+85	-40~+85	°C
Storage Temp.	Tstg	-40~+85	-40~+85	-40~+85	°C
Derating *	ΔIF	0.41	0.34	0.34	mA/°C

* The current derating for operation applies when temperature is above 25°C.

• IFM Condition : tw ≤ 1msec, Duty ≤ 1/20

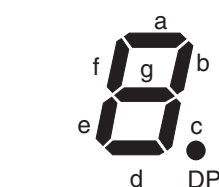
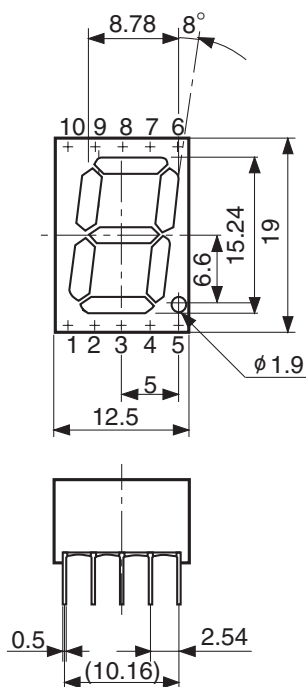
■ Electro-Optical Characteristics

Ta = 25°C

Part No.		Case Color	Chip		Lumminous Intensity I _v					Wavelength λ _p		Forward Voltage V _F			Reverse Current I _R	
Anode Common	Cathode Common				Rank B		Rank C			TYP	I _F	TYP	I _F	TYP	MAX	I _F
			Material	Emitted Color	MIN	TYP	MIN	TYP	I _F							
NAR161	NKR161	Black	GaAlAs	Red	6	12	12	15	20	660	20	1.7	2.0	20	100	4
NAR163	NKR163	Gray														
NAG161P	NKG161P	Black	GaP	Green	2	4	—	—	20	565	20	2.2	2.5	20	100	4
NAG163P	NKG163P	Gray														
NAA161	NKA161	Black	GaAsP	Orange	4	8	—	—	20	605	20	2.2	2.5	20	100	4
NAA163	NKA163	Gray														
Units					mcd	mcd	mcd	mcd	mA	nm	mA	V	V	mA	μA	V

■ Package Dimensions

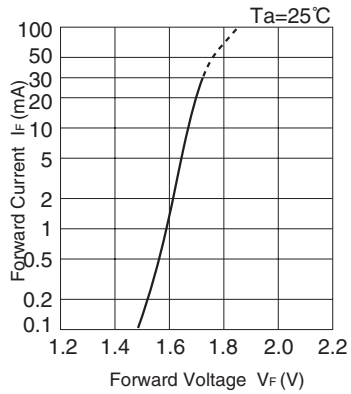
Unit : mm



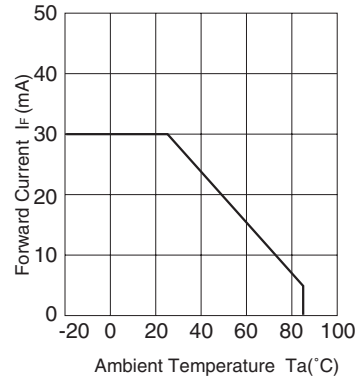
1. Cathode e
2. Cathode d
3. Common Anode
4. Cathode c
5. Cathode DP
6. Cathode b
7. Cathode a
8. Common Anode
9. Cathode f
10. Cathode g

Tolerance : ± 0.25mm

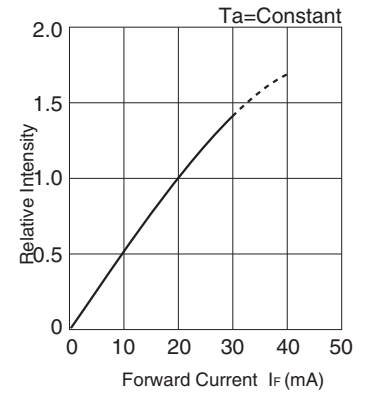
■ Forward Voltage vs. Forward Current



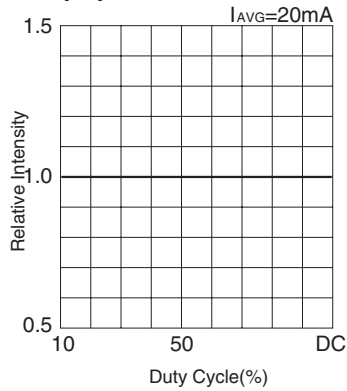
■ Ambient Temperature vs. Maximum Forward Current



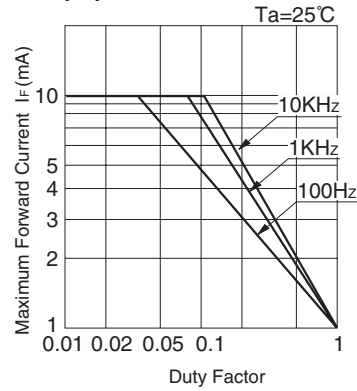
■ Forward Current vs. Relative Intensity



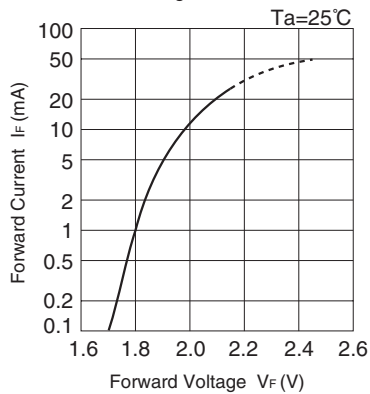
■ Duty Cycle vs. Relative Intensity



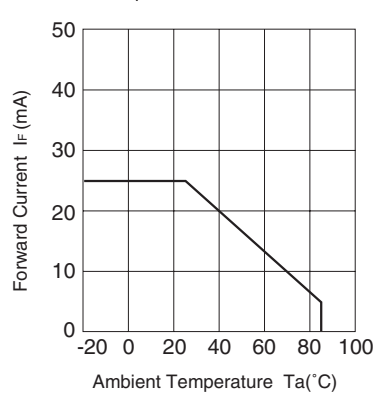
■ Duty Cycle vs. Maximum Forward Current



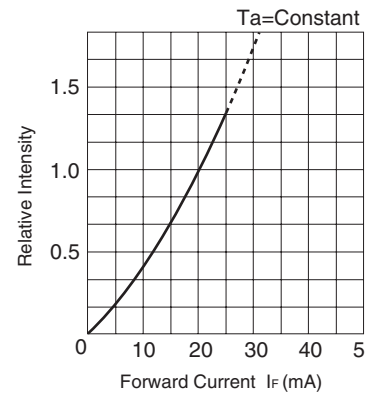
■ Forward Voltage vs. Forward Current



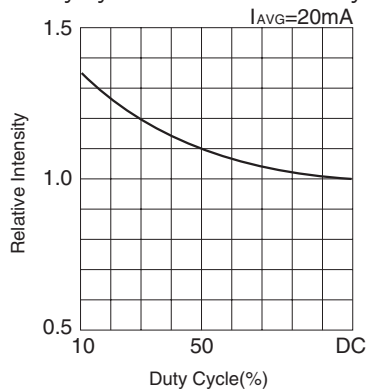
■ Ambient Temperature vs. Maximum Forward Current



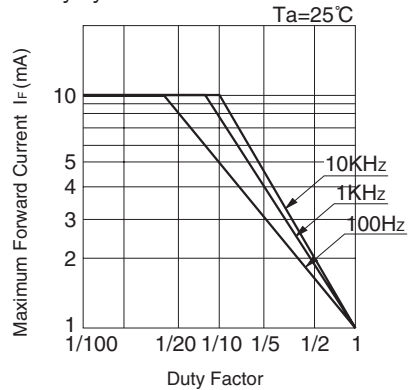
■ Forward Current vs. Relative Intensity



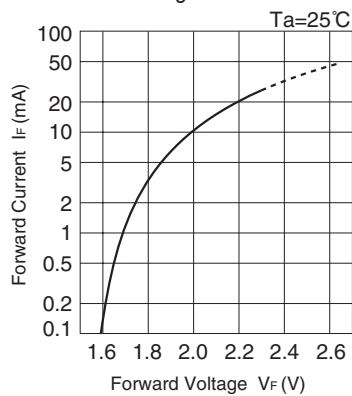
■ Duty Cycle vs. Relative Intensity



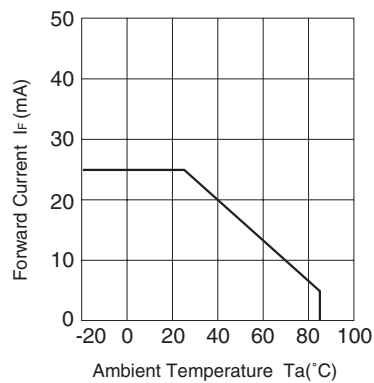
■ Duty Cycle vs. Maximum Forward Current



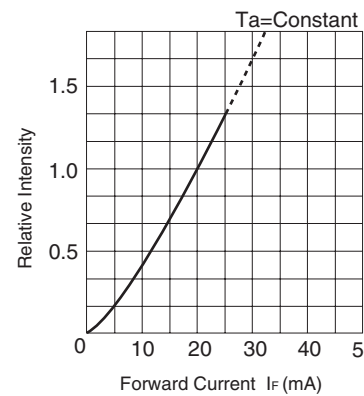
■ Forward Voltage vs. Forward Current



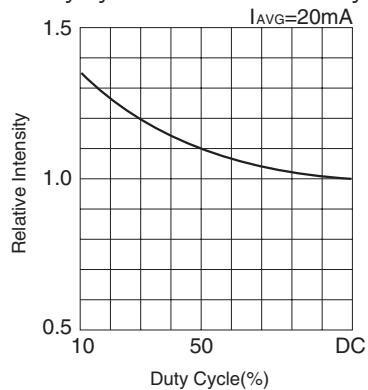
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Current vs. Relative Intensity



■ Duty Cycle vs. Relative Intensity



■ Duty Cycle vs. Maximum Forward Current

