



MODEL NO: 19-22VGVRC/TR8

Device Number : DSE-192-007 REV. 1.0

Chip LEDs with Bi-Color(Multi-Color)

ECN : _____ Page: 1/10

Features :

- Package in 8 mm tape on 7" diameter reel.
- Compatible with automatic equipment.
- Compatible with infrared and vapor phase reflow solder process.
- Multi-color type.

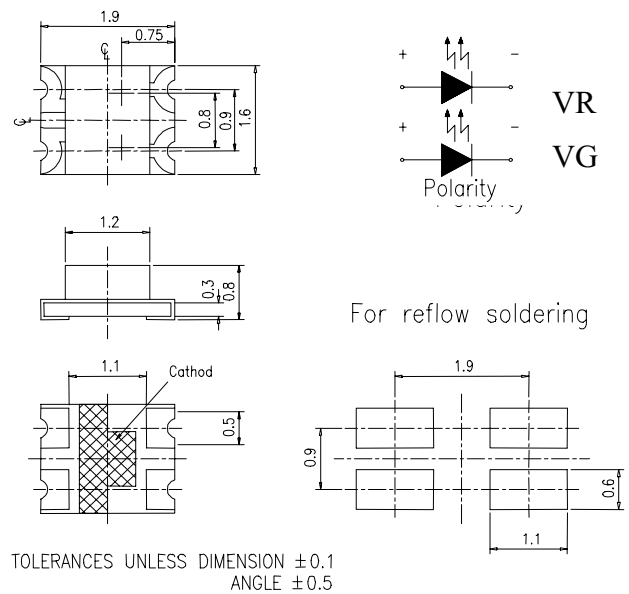
Descriptions :

- The 19-22 SMD Taping is much smaller than lead frame type components, thus enable smaller board size, higher packing density, reduced storage space and finally smaller equipment to be obtained.
- Besides, light Weight makes them ideal for miniature applications, etc.

Applications :

- Automotive: backlighting in dashboard and switch.
- Telecommunication: indicator and backlighting in telephone and fax.
- Flat backlight for LCD, switch and symbol.
- General use.

Package Dimensions :



Notes :

Tolerances Unless Dimension ± 0.1 mm
Angle $\pm 0.5^\circ$ Unit=mm

PART NO	Chip		Lens Color
	Material	Emitted Color	
19-22VGVRC/TR8	VG:	GaP Green	Water Clear
	VR:	GaAsP/GaP Hi-Eff Red	

Office: NO. 25, Lane 76, Sec. 3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

TEL: 886-2-2267-2000, 2267-9936

FAX: 886-2-2267-6244, 2267-6189, 2267-6306

http://www.everlight.com

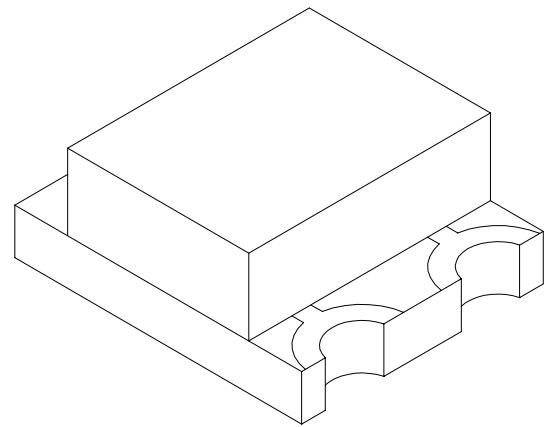
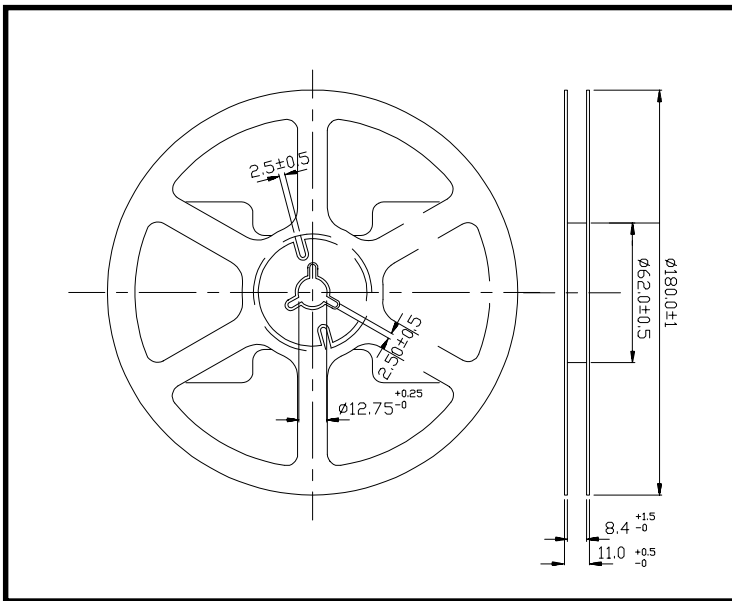


MODEL NO: 19-22VGVRC/TR8
Chip LEDs with Bi-Color(Multi-Color)

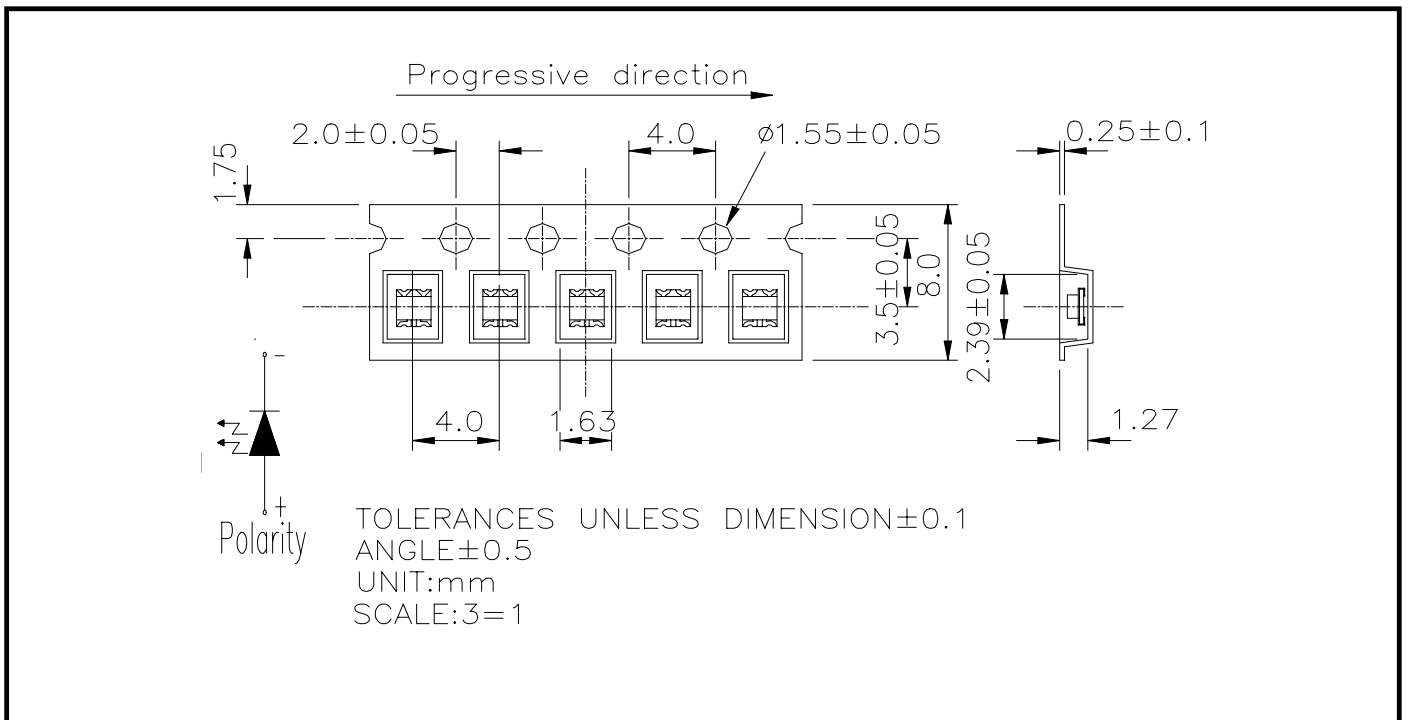
Device Number : DSE-192-007 REV. 1.0

ECN : _____ Page: 2/10

■ Package Dimensions :



■ Loaded quantity per reel 2000 pcs/reel :





MODEL NO: 19-22VGVRC/TR8

Device Number : DSE-192-007 REV. 1.0

Chip LEDs with Bi-Color(Multi-Color)

ECN : Page: 4/10

Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv VG: VR:	7.5 4.0	12.5 7.0	-----	mcd	If=20mA
Viewing Angle	2θ 1/2	-----	130	-----	deg	If=20mA
Peak Wavelength	λp VG: VR:	-----	570 640	-----	nm	If=20mA
Dominant Wavelength	λd VG: VR:	-----	571 625	-----	nm	If=20mA
Spectrum Radiation Bandwidth	Δλ VG: VR:	-----	30 45	-----	nm	If=20mA
Forward Voltage	Vf VG: VR:	1.7 1.7	2.1 2.0	2.4 2.4	V	If=20mA
Reverse Current	Ir	-----	-----	10	μA	Vr=5V



MODEL NO: 19-22VGVRC/TR8

Device Number : DSE-192-007 REV. 1.0

Chip LEDs with Bi-Color(Multi-Color)

ECN : _____ Page: 5/10

■ Reliability Test Items And Conditions:

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85°C 30min ∫ 5 min L : -55°C 30min	50 CYCLE	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	50 CYCLE	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	If = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1



MODEL NO: 19-22VGVRC/TR8

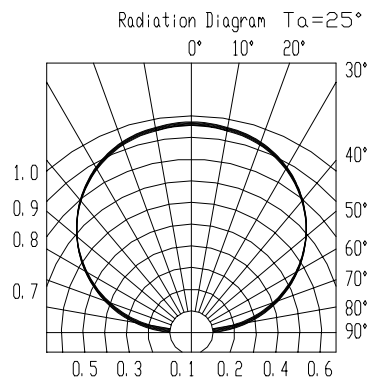
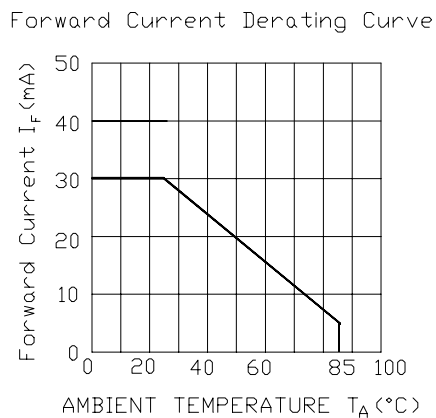
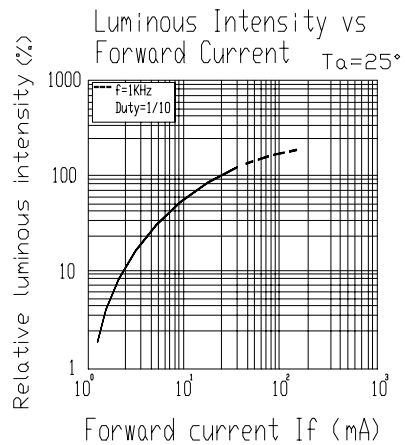
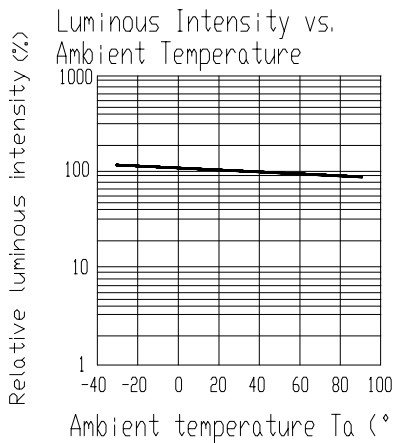
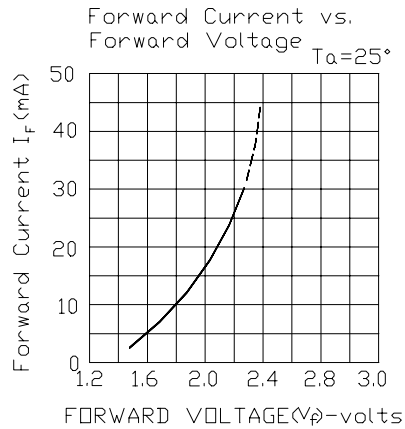
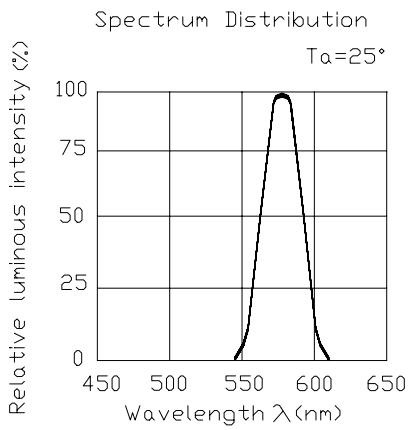
Device Number : DSE-192-007 REV. 1.0

Chip LEDs with Bi-Color(Multi-Color)

ECN : _____ Page: 6/10

Typical Electro-Optical Characteristic Curves

VG





MODEL NO: 19-22VGVRC/TR8

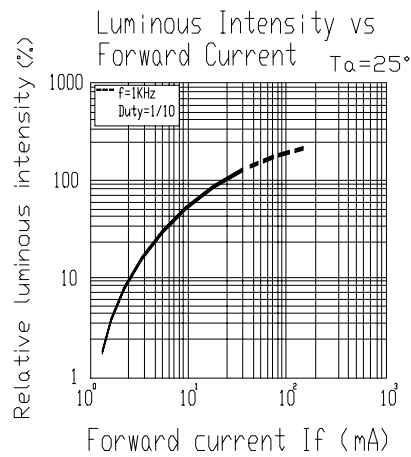
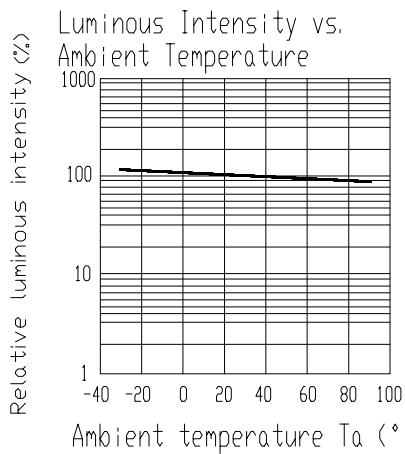
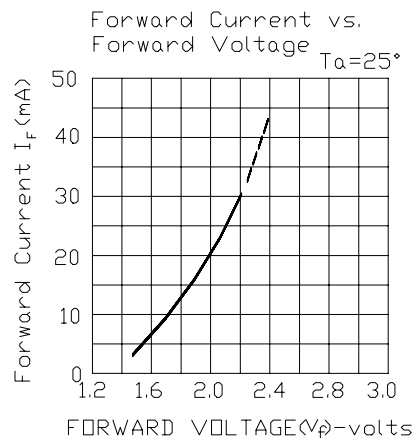
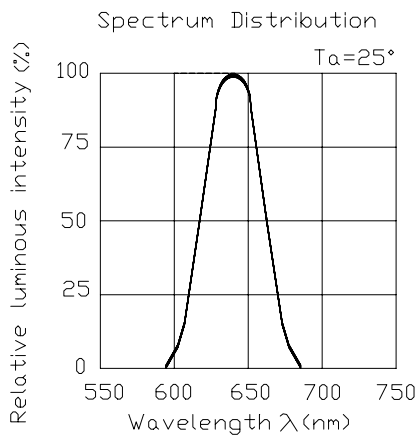
Device Number : DSE-192-007 REV. 1.0

Chip LEDs with Bi-Color(Multi-Color)

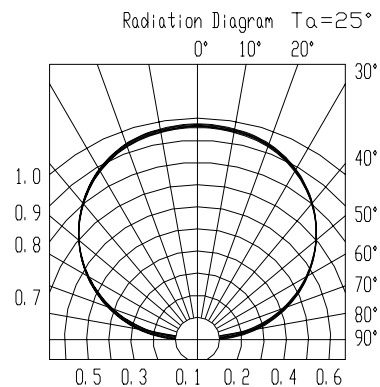
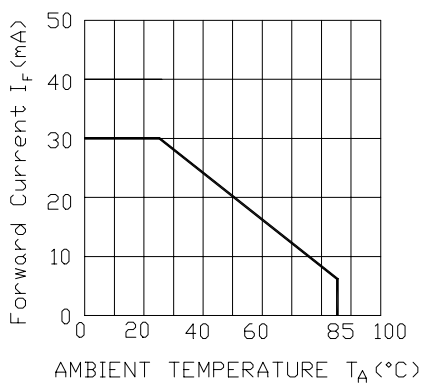
ECN : _____ Page: 7/10

Typical Electro-Optical Characteristic Curves

VR



Forward Current Derating Curve





MODEL NO: 19-22VGVRC/TR8

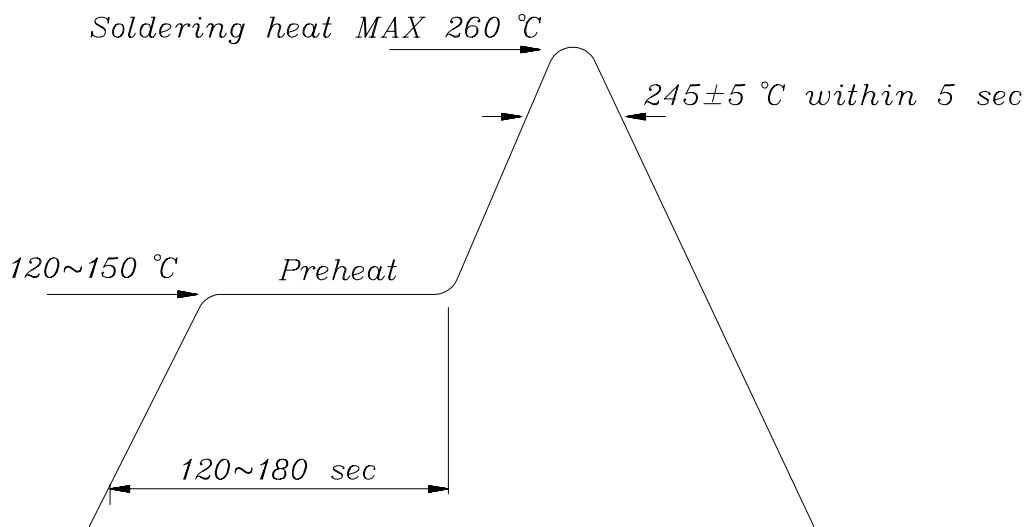
Device Number : DSE-192-007 REV. 1.0

Chip LEDs with Bi-Color(Multi-Color)

ECN : Page: 9/10

■ **Soldering heat reliability (DIP)**

Please refer to the following figure :

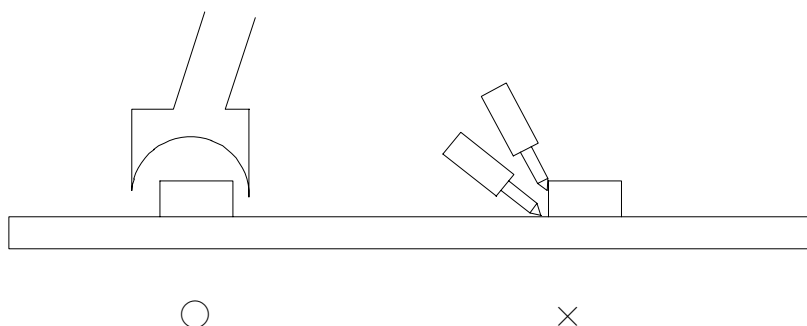


■ **Soldering Iron**

Basic spec is ≤ 5 sec when 260°C .If temperature is higher, time should be shorter (+10°C → -1sec). Power dissipation of iron should be smaller than 15 W , and temperature should be controllable.Surface temperature of the device should be under 230 °C .

■ **Rework**

1. Customer must finish rework within 5 sec under 260°C .
2. Copper foil can not be touched by the head of iron.
3. Twin-head type is preferred.





MODEL NO: 19-22VGVRC/TR8

Device Number : DSE-192-007 REV. 1.0

Chip LEDs with Bi-Color(Multi-Color)

ECN : _____ Page: 10/10

■ Reflow Temp / Time :

