



# ■ BRACKET TYPE LED

## SDB-205B Series



Ø 9.3mm

### ■ Absolute Maximum Ratings

T<sub>a</sub> = 25°C

|                      |                  | Red      | Yellow   | Pure Green | Unit  |
|----------------------|------------------|----------|----------|------------|-------|
|                      |                  | RD(BR)   | YD(AY)   | GD(BG)     |       |
| Power Dissipation    | P <sub>b</sub>   | 100      | 125      | 125        | mW    |
| Forward Current      | I <sub>F</sub>   | 50       | 50       | 50         | mA    |
| Peak Forward Current | I <sub>FM</sub>  | 300      | 100      | 100        | mA    |
| Reverse Voltage      | V <sub>R</sub>   | 4        | 4        | 4          | V     |
| Operating Temp.      | T <sub>opr</sub> | -30~+85  | -30~+85  | -30~+85    | °C    |
| Storage Temp.        | T <sub>stg</sub> | -30~+100 | -30~+100 | -30~+100   | °C    |
| Derating *           | ΔI <sub>F</sub>  | 0.67     | 0.67     | 0.67       | mA/°C |

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

• I<sub>FM</sub> Condition : t<sub>w</sub> ≤ 1msec, Duty ≤ 1/20

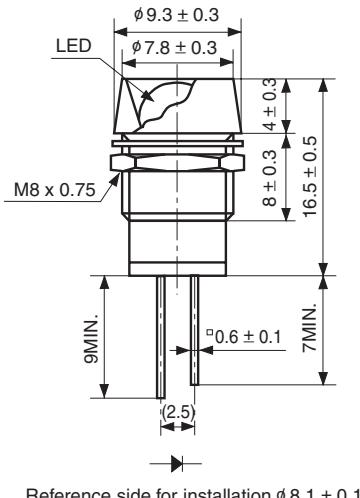
### ■ Electro-Optical Characteristics

T<sub>a</sub> = 25°C

| Part No.    | Emitted Color | Resin Color     | Bracket Material | Chip Element | Luminous Intensity |     |                | Wavelength     |     |                | Forward Voltage |     |                | Reverse Current |                | Capacitance C <sub>o</sub> |
|-------------|---------------|-----------------|------------------|--------------|--------------------|-----|----------------|----------------|-----|----------------|-----------------|-----|----------------|-----------------|----------------|----------------------------|
|             |               |                 |                  |              | I <sub>v</sub>     |     |                | λ <sub>p</sub> | Δλ  | V <sub>F</sub> |                 |     | I <sub>R</sub> |                 |                |                            |
|             |               |                 |                  |              | MIN                | TYP | I <sub>F</sub> | TYP            | TYP | I <sub>F</sub> | TYP             | MAX | I <sub>F</sub> | MAX             | V <sub>R</sub> |                            |
| SDC-205B-RD | Red           | Red Diffused    | Metal            | BR           | 8                  | 20  | 20             | 660            | 30  | 20             | 1.7             | 2.0 | 20             | 100             | 4              | 50                         |
| SDC-205B-YD | Yellow        | Yellow Diffused |                  | AY           | 8                  | 16  | 20             | 580            | 30  | 20             | 2.2             | 2.5 | 20             | 100             | 4              | 40                         |
| SDC-205B-GD | Pure Green    | Green Diffused  |                  | BG           | 5                  | 10  | 20             | 555            | 30  | 20             | 2.1             | 2.5 | 20             | 100             | 4              | 50                         |
| Units       |               |                 |                  |              | mcd                | mcd | mA             | nm             | nm  | mA             | V               | V   | mA             | μA              | V              | pF                         |

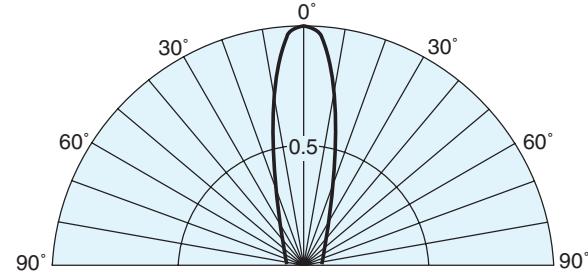
### ■ Package Dimensions

Unit : mm



Reference side for installation Ø 8.1 ± 0.1

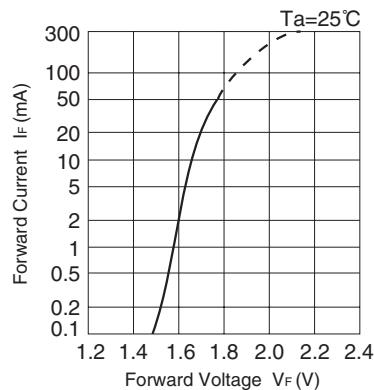
### ■ Spatial Distribution



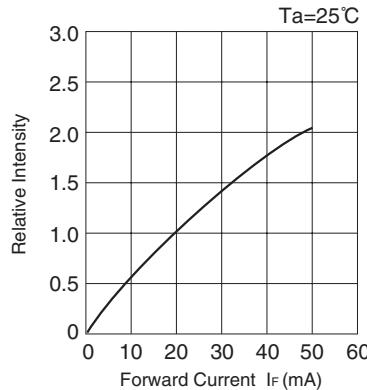


# ■ BRACKET TYPE LED SDB-205B-RD

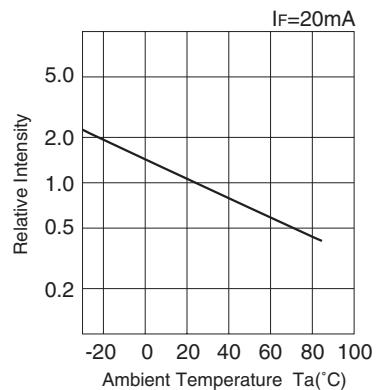
■ Forward Voltage vs. Forward Current



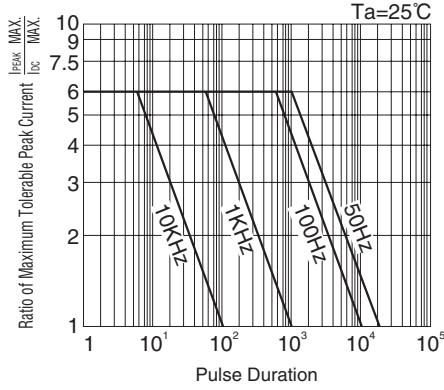
■ Forward Current vs. Relative Intensity



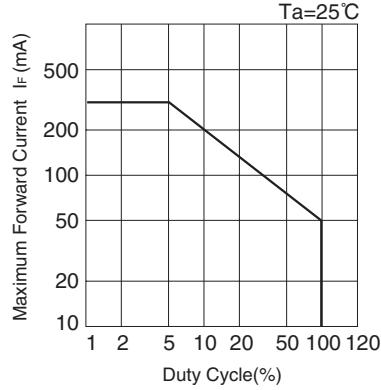
■ Ambient Temperature vs. Intensity



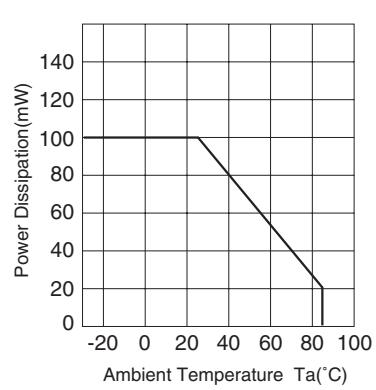
■ Pulse Duration vs. Maximum Tolerable Peak Current



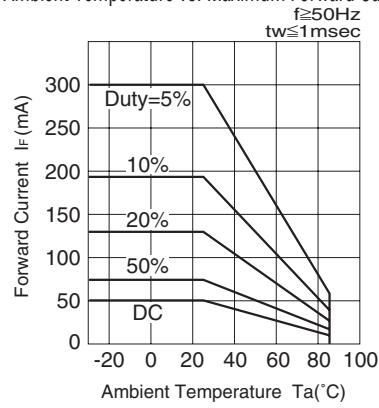
■ Duty Cycle vs. Maximum Forward Current



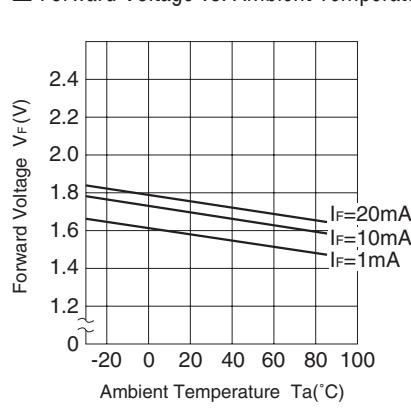
■ Power Dissipation vs. Ambient Temperature



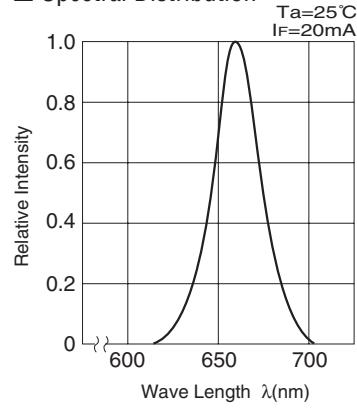
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



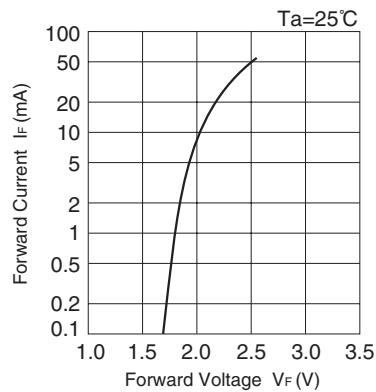
■ Spectral Distribution



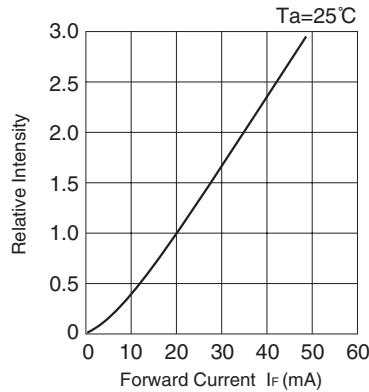
**STANLEY**

# ■ BRACKET TYPE LED SDB-205B-YD

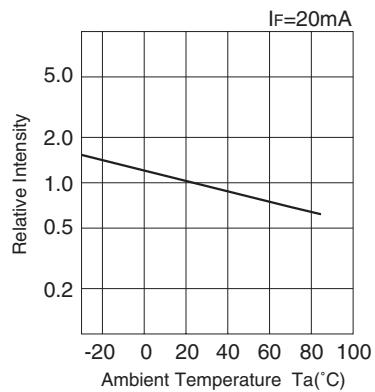
■ Forward Voltage vs. Forward Current



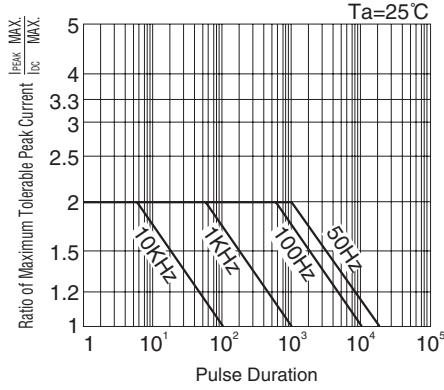
■ Forward Current vs. Relative Intensity



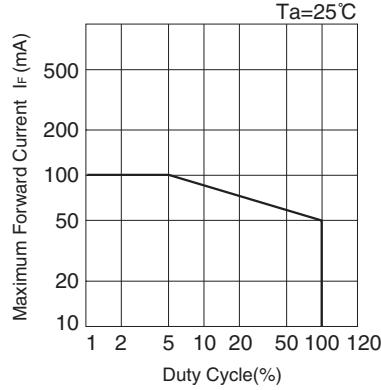
■ Ambient Temperature vs. Intensity



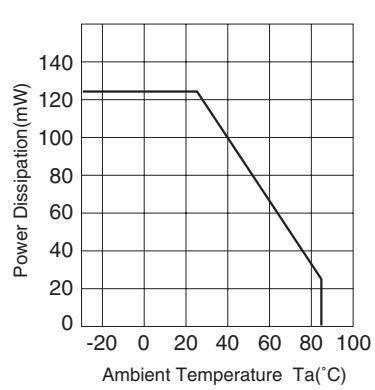
■ Pulse Duration vs. Maximum Tolerable Peak Current



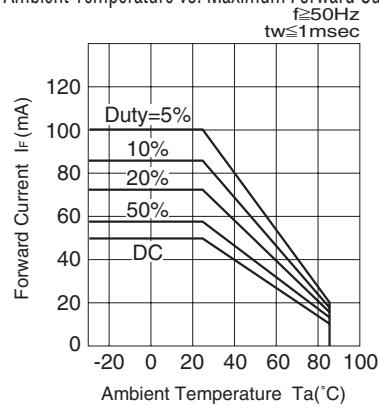
■ Duty Cycle vs. Maximum Forward Current



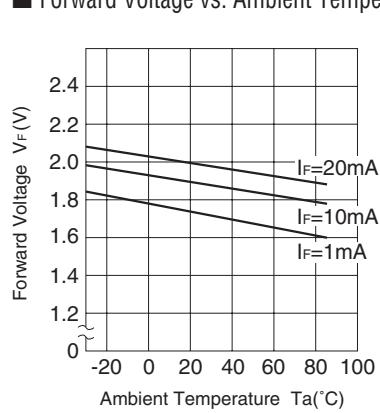
■ Power Dissipation vs. Ambient Temperature



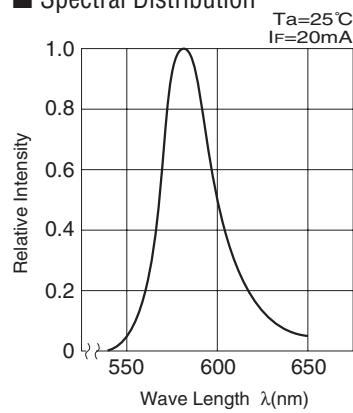
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



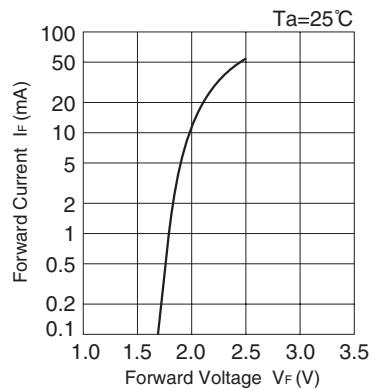
■ Spectral Distribution



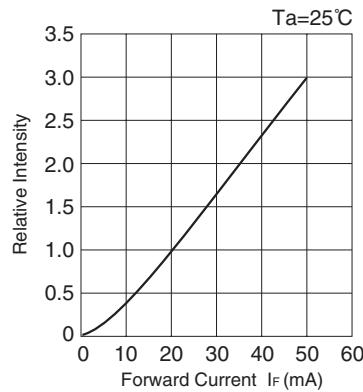


# ■ BRACKET TYPE LED SDB-205B-GD

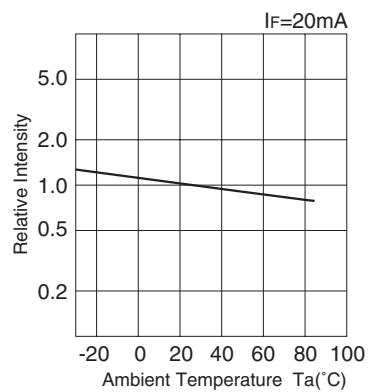
■ Forward Voltage vs. Forward Current



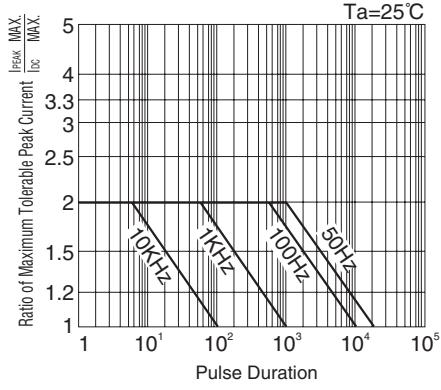
■ Forward Current vs. Relative Intensity



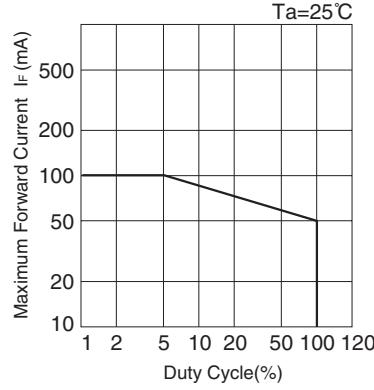
■ Ambient Temperature vs. Intensity



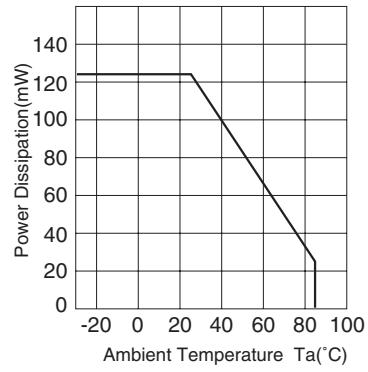
■ Pulse Duration vs. Maximum Tolerable Peak Current



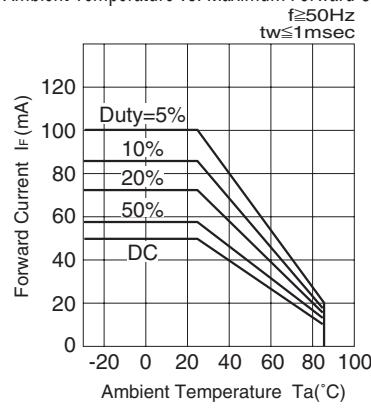
■ Duty Cycle vs. Maximum Forward Current



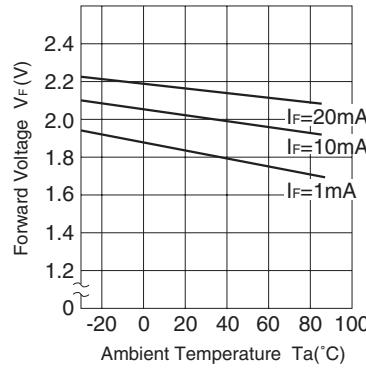
■ Power Dissipation vs. Ambient Temperature



■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

