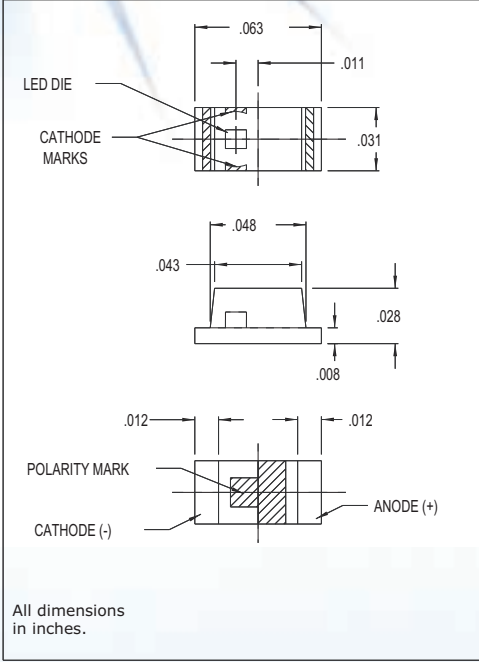


**7017X Series Surface Mount LEDs 0603 Package Size**  
**DESCRIPTION AND FEATURES**



**Surface Mount Technology**

- Tape and reel packaged for high-speed autoinsertion.
- Convection and vapor-phase reflow compatible.
- Compact form enables high density placement.
- Packaged 4000 pieces per reel.

**Leading Edge LED Optoelectronic Performance**

- Consistent high brightness.

**Exceptional Reliability**

- Stringent process controls assure quality.
- Extensive qualification testing to meet strictest requirements.
- Designed to permit easy post-reflow solder joint inspection.

- Solderpad geometry on page 1-X1.

**ELECTRO-OPTICAL CHARACTERISTICS AND RATINGS**

| PART NUMBER   | 7017X21     | 7017X23     | 7017X3      | 7017X15     | 7017X13     | 7017X5      | 7017X1      | 7017X7       | 7017X33     |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Output Color  | Red         | Orange      | Orange      | Green       | Yellow      | Green       | Red         | Yellow/Green | Yellow      |
| Diffusion   | Diffused    | Diffused    | Diffused    | Diffused    | Diffused    | Diffused    | Diffused    | Diffused     | Diffused    |
| Package Color   | White       | White       | Clear       | Clear       | Clear       | Clear       | Clear       | Clear        | White       |
| Test Current (mA)                                     | 20          | 20          | 20          | 20          | 20          | 20          | 20          | 20           | 20          |
| Forward Voltage Typ. (V)                              | 1.9         | 1.9         | 2.2         | 2.1         | 2.2         | 2.1         | 1.7         | 2.1          | 1.9         |
| Forward Voltage Max. (V)                              | 2.4         | 2.4         | 2.8         | 2.8         | 2.8         | 2.8         | 2.3         | 2.8          | 2.4         |
| Luminous Intensity Min. (mcd)                         | 16          | 16          | 2.0         | 1.4         | 2.0         | 3.8         | 7.0         | 7.0          | 16          |
| Luminous Intensity Typ. (mcd)                         | 50          | 65          | 3.4         | 2.4         | 3.4         | 6.4         | 11.7        | 11.7         | 65          |
| Luminous Intensity Max. (mcd)                         | -           | -           | -           | -           | -           | -           | -           | -            | -           |
| Peak Wavelength (nm)                                  | 630         | 609         | 605         | 555         | 580         | 560         | 660         | 570          | 592         |
| Viewing Angle 20 1/2 (degrees)                        | 70          | 70          | 70          | 70          | 70          | 70          | 70          | 70           | 70          |
| Power Dissipation (mW)                                | 81          | 81          | 70          | 70          | 70          | 70          | 57.5        | 70           | 81          |
| Operating Temperature (°C)                            | -40 to +85  | -40 to +85  | -30 to +85  | -30 to +85  | -30 to +85  | -30 to +85  | -30 to +85  | -30 to +85   | -40 to +85  |
| Storage Temperature (°C)                              | -40 to +100 | -40 to +100 | -40 to +100 | -40 to +100 | -40 to +100 | -40 to +100 | -40 to +100 | -40 to +100  | -40 to +100 |
| Peak Forward Current Max. (1µs @ 10% duty cycle) (mA) | 100         | 100         | 60          | 60          | 60          | 60          | 60          | 60           | 100         |
| Reverse Voltage (IR=100µA) (V)                        | 5           | 5           | 4           | 4           | 4           | 4           | 4           | 4            | 5           |
| Lead Solder Time @ 260°C                              | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 5            | 5           |