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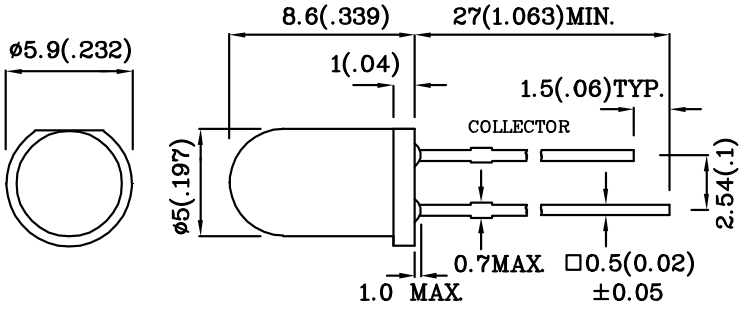
**Part Number:** **XRNI53W**

PHOTOTRANSISTOR

### Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE XTNI53W SERIES INFRARED EMITTING LED LAMP.
- WATER CLEAR LENS.




Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.

### Absolute Maximum Ratings at $T_A$=25°C

| Parameter | Max. Ratings |
|---|---|
| Collector-to-Emitter Breakdown Voltage | 30V |
| Emitter-to-Collector Breakdown Voltage | 5V |
| Power Dissipation at (or below) 25°C Free Air Temperature | 100mW |
| Operating / Storage Temperature Range | -40°C To +85°C |
| Lead Soldering Temperature (>5mm for 5sec) | 260°C |

## Electrical / Optical Characteristics at $T_A$=25°C

| Symbol | Parameter | Min. | Typ. | Max. | Unit | Test Condiction |
|---|---|---|---|---|---|---|
| $V_{BR\ CEO}$ | Collector-to-Emitter Breakdown Voltage | 30 | - | - | V | $I_C$=100 μ A<br>Ee=0mW/cm² |
| $V_{BR\ ECO}$ | Emitter-to-Collector Breakdown Voltage | 5 | - | - | V | $I_E$=100 μ A<br>Ee=0mW/cm² |
| $V_{CE(SAT)}$ | Collector-to-Emitter Saturation Voltage | - | - | 0.8 | V | $I_C$=2mA<br>Ee=20mW/cm² |
| $I_{CEO}$ | Collector Dark Current | - | - | 100 | nA | $V_{CE}$=10V<br>Ee=0mW/cm² |
| $T_R$ | Rise Time (10% to 90%) | - | 3 | - | μ s | $V_{CE}$=5V<br>$I_C$=1mA<br>$R_L$=1K Ω |
| $T_F$ | Fall Time (90% to 10%) | - | 3 | - | μ s | |
| $I_{(ON)}$ | On State Collector Current | 0.1 | 0.4 | - | mA | $V_{CE}$=5V<br>Ee=0mW/cm2<br>λ=940nm |