

## COAXIAL RF SURGE PROTECTION

### GX Series

The GX Series of RF DC pass surge arrestors are engineered for RF coaxial applications where DC current is needed on the coaxial line. The GX Series can be used on GPS and other active antenna systems that operate in the range from DC to 2700 MHz. All GX arrestors are for 50Ω networks.



#### FEATURES

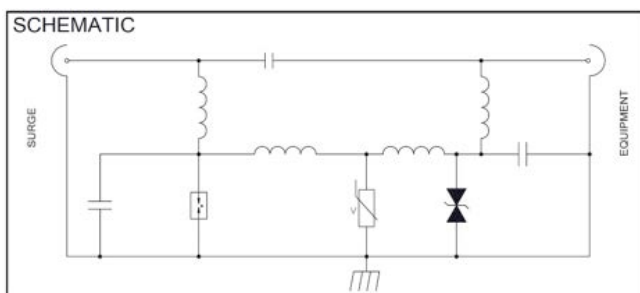
- Frequency ranges from DC to 2.7 GHz
- Patented hybrid surge protection
- Repeatable RF performance after surge
- Flexible bulkhead and bracket mounting options
- Weatherproof when installed
- 7/16" DIN, N-Type and TNC
- Designed for 50Ω networks

#### STANDARDS

- Weatherproof: IEC 60529 IP 67
- Bellcore TA-NWT-000487
- Procedure 4.11, Wind Driven (120 MPH)
- CE and RoHS

#### PATENTED LIGHTNING ARRESTOR TECHNOLOGY

The GX product family is based on PolyPhaser's patented hybrid protection technology. This hybrid circuit integrates the quick response of a silicon avalanche suppression diode (SASD) with the surge handling capabilities of a MOV and gas tube. The GX technology has been field tested for more than a decade and has been used in critical RF networks world-wide.



#### GENERAL SPECIFICATIONS\*

|                         |                                     |
|-------------------------|-------------------------------------|
| Insertion Loss          | ≤0.1dB                              |
| VSWR                    | ≤1.1 or Better Over Frequency Range |
| Return Loss             | <26dB                               |
| Max Operational Current | 4A                                  |
| Typical Surge Withstand | 20kA 8/20μs Waveform                |
| GXJ Bias-T              | SMA Connector as DC Injector        |

| 1st Three Identifiers | Frequency Range         |
|-----------------------|-------------------------|
| AGX                   | DC to 50MHz             |
| BGX                   | 40MHz to 400MHz         |
| CGX                   | 400MHz to 1200MHz       |
| DGX                   | 800MHz to 2500MHz       |
| Type                  | Description             |
| E                     | Extended Frequency      |
| H                     | High Power              |
| J                     | Bias-T w/ Injector Port |
| Z                     | DC-Pass                 |
| Connector Types       | Description             |
| D                     | 7/16" DIN               |
| N                     | N-Type                  |
| T                     | TNC                     |

#### Example of Naming Convention for GX Family\*\*

|                |        |      |            |         |                           |                             |                                 |                   |   |
|----------------|--------|------|------------|---------|---------------------------|-----------------------------|---------------------------------|-------------------|---|
| D              | GX     | J    | +          | 06      | D                         | M                           | F                               | -                 | A |
| Frequency Band | Series | Type | Positivity | Voltage | Surge Side Connector Type | Surge Side Connector Gender | Protected Side Connector Gender | Lid Configuration |   |

\*Confirm with product specific datasheet for detailed specifications

\*\*Not all combinations available

## AVAILABLE GX PART NUMBERS

| Part Number     | Frequency Range | Connector | Operational Voltage | RF Power (RMS) | Let-Through Energy** |
|-----------------|-----------------|-----------|---------------------|----------------|----------------------|
| AGXZ+15TFTF-A   | DC - 50MHz      | TNC       | 15V                 | 1W             | ≤1000μJ              |
| BGXZ-60NFNF-ALT | 40MHz - 400MHz  | N-Type    | 60V                 | 100W           | ≤2.5mJ               |
| BGXZ-60NFNF-CNS | 40MHz - 400MHz  | N-Type    | 60V                 | 100W           | ≤2.5mJ               |
| BGXZ-60NFNM-ALT | 40MHz - 400MHz  | N-Type    | 60V                 | 100W           | ≤2.5mJ               |
| BGXZ-60NFNM-AS  | 5MHz - 400MHz   | N-Type    | 60V                 | 40W            | ≤2.5mJ               |
| CGXJ+15NFNF-A   | 400MHz - 1.2GHz | N-Type    | 15V                 | 300W           | ≤25μJ                |
| CGXJ+36NFNF-A   | 400MHz - 1.2GHz | N-Type    | 36V                 | 300W           | ≤25μJ                |
| CGXZ+15NFNF-A   | 400MHz - 1.2GHz | N-Type    | 15V                 | 300W           | ≤500μJ               |
| CGXZ+15NMNF-A   | 400MHz - 1.2GHz | N-Type    | 15V                 | 300W           | ≤500μJ               |
| CGXZ+36NFNF-A   | 400MHz - 1.2GHz | N-Type    | 36V                 | 300W           | ≤1500μJ              |
| CGXZ+36NMNF-A   | 400MHz - 1.2GHz | N-Type    | 36V                 | 300W           | ≤1000μJ              |
| DGXE+24DMDf-A   | 400MHz - 2.5GHz | 7/16" DIN | 24V                 | 600W           | ≤1mJ                 |
| DGXE+30NMNF-A   | 650MHz - 2.7GHz | N-Type    | 30V                 | 400W           | ≤1.5mJ               |
| DGXH+48DMDf-A   | 800MHz - 2.5GHz | 7/16" DIN | 48V                 | 500W           | ≤146μJ               |
| DGXJ+24NFNF-A   | 800MHz - 2.5GHz | N-Type    | 24V                 | 300W           | ≤25μJ                |
| DGXJ+24NFNM-A   | 800MHz - 2.5GHz | N-Type    | 24V                 | 300W           | ≤25μJ                |
| DGXZ+06DNMNF-Z  | 698MHz - 2.7GHz | N-Type    | 6V                  | 300W           | ≤175μJ               |
| DGXZ+06DFDF-A   | 800MHz - 2.5GHz | 7/16" DIN | 6V                  | 300W           | ≤175μJ               |
| DGXZ+06DMDf-A   | 800MHz - 2.5GHz | 7/16" DIN | 6V                  | 300W           | ≤175μJ               |
| DGXZ+06NFNF-A   | 800MHz - 2.5GHz | N-Type    | 6V                  | 300W           | ≤175μJ               |
| DGXZ+06NFNF-B   | 800MHz - 2.5GHz | N-Type    | 6V                  | 300W           | ≤175μJ               |
| DGXZ+06NFNF-F   | 800MHz - 2.5GHz | N-Type    | 6V                  | 300W           | ≤175μJ               |
| DGXZ+06NFNM-A   | 800MHz - 2.5GHz | N-Type    | 6V                  | 300W           | ≤175μJ               |
| DGXZ+06NFNM-B   | 800MHz - 2.5GHz | N-Type    | 6V                  | 300W           | ≤175μJ               |
| DGXZ+06NMNF-A   | 800MHz - 2.5GHz | N-Type    | 6V                  | 300W           | ≤175μJ               |
| DGXZ+06NMNF-Z   | 800MHz - 2.5GHz | N-Type    | 6V                  | 300W           | ≤175μJ               |
| DGXZ+06TFTF-A   | 800MHz - 2.5GHz | TNC       | 6V                  | 300W           | ≤175μJ               |
| DGXZ+15DMDf-A   | 800MHz - 2.5GHz | 7/16" DIN | 15V                 | 300W           | ≤500μJ               |
| DGXZ+15NFNF-A   | 800MHz - 2.5GHz | N-Type    | 15V                 | 300W           | ≤500μJ               |
| DGXZ+15NFNM-A   | 800MHz - 2.5GHz | N-Type    | 15V                 | 300W           | ≤500μJ               |
| DGXZ+15NMNF-A   | 800MHz - 2.5GHz | N-Type    | 15V                 | 300W           | ≤500μJ               |
| DGXZ+15TFTF-A   | 800MHz - 2.5GHz | TNC       | 15V                 | 300W           | ≤500μJ               |
| DGXZ+15TFTF-BN  | 800MHz - 2.5GHz | TNC       | 15V                 | 300W           | ≤500μJ               |
| DGXZ+36NFNF-A   | 800MHz - 2.5GHz | N-Type    | 36V                 | 300W           | ≤1.5mJ               |
| DGXZ+36NMNF-A   | 800MHz - 2.5GHz | N-Type    | 36V                 | 300W           | ≤1.5mJ               |
| DGXZ-60NFNF-A   | 800MHz - 2.5GHz | N-Type    | 60V                 | 300W           | ≤2.5mJ               |

\*\* Measured under a 3kA 8/20us Waveform

## DIMENSIONS

