

3QL5~500KV/0.05A Product Data

High voltage 3-phase bridge rectifier diode **3QL5~500KV/0.05A** adopts high reliable mesa structure and diffusion craftwork, epoxy resin molded in a compact structure.

■ Feature

- Avalanche characteristic
- More sizes to choose
- epoxy resin molded in vacuum, have anticorrosion in the surface
- Operating junction temperature Tj: -40°C—+150°C

■ Application

- High voltage rectifier used in electrostatic cleaning
- High voltage generator
- High voltage testing equipment
- General purpose high voltage rectifier, voltage multiplier assembly

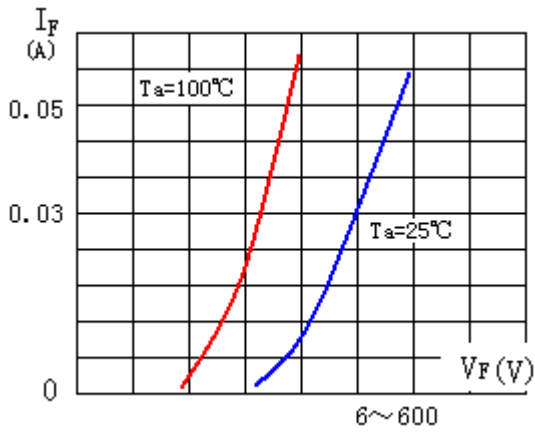
■ Limiting Value (Absolute Maximum Rating)

| Item | Symbol | Unit | Conditions | Data |
|--|-------------|------|---|----------|
| Repetitive Peak Reverse Voltage (Single Arm) | V_{RRM} | KV | $T_a=25^{\circ}\text{C}$ $I_R=1.0\mu\text{A}$ | 5~500.0 |
| Peak Working Reverse Voltage (Single Arm) | V_{RWM} | KV | $T_a=25^{\circ}\text{C}$ $I_R=1.0\mu\text{A}$ | 5~500.0 |
| Non-Repetitive Peak Reverse Voltage (Single Arm) | V_{RSM} | KV | $T_a=25^{\circ}\text{C}$ $I_R=1.0\mu\text{A}$ | 6~600.0 |
| Average Forward Current | $I_{F(AV)}$ | A | (50KHz Half-sine Wave , Resistance load @ $T_{break}=50^{\circ}\text{C}$) | 0.05 |
| Reverse Recovery Time | trr | nS | $I_F=50\text{mA}$ $I_R=100\text{mA}$ $I_{RR}=25\text{mA}$ | -- |
| Surge Forward Current | I_{FSM} | A | 0.01S @ Half-Sine wave 50Hz | 10.0 |
| Operating Ambient Temperature | T_a | °C | | -40~+125 |
| Storage Temperature | T_{stg} | °C | | -40~+125 |

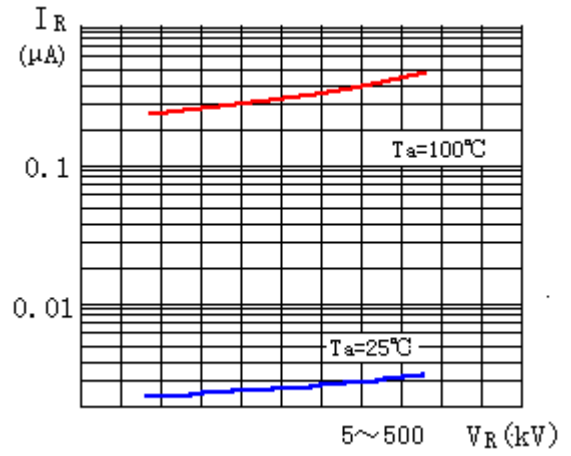
■ Electrical Characteristic (Ta=25°C Unless Otherwise Specified)

| | | | | |
|--|------------|---------------|---|---------|
| Forward Peak Voltage (Single Arm; Reference Value) | V_{FM} | V | @ $T_a=25^{\circ}\text{C}$ $I_F=0.02\text{A}$ | 6~600.0 |
| Peak Reverse Current (Reference Value) | I_{RRM1} | μA | @ $T_a=25^{\circ}\text{C}$ $V_{RM}=V_{RRM}$ | 2.0 |
| | I_{RRM2} | μA | @ $T_a=100^{\circ}\text{C}$ $V_{RM}=V_{RRM}$ | 50.0 |

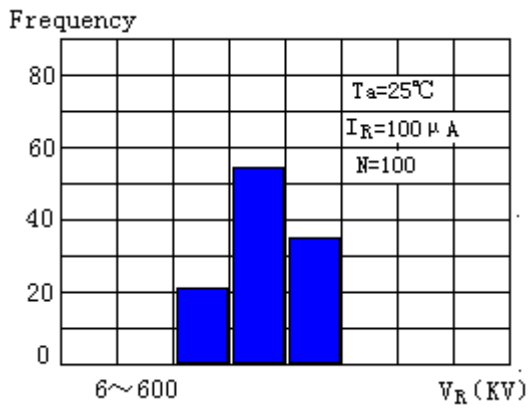
■ Characteristic Curve



Forward Characteristics



Reverse Characteristics



Avalanche Breakdown Voltage Distribution