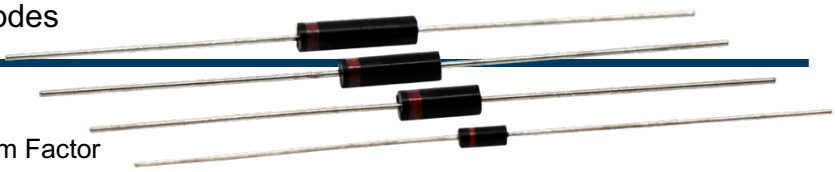
# XGF SERIES

6 to 20kV, 160 to 300mA, 80nS
XOE Axial Lead Diodes

EXTREME OPTIMIZED EFFICIENCY

High Voltage Products. High Voltage Experts.



## Features

- High Voltage, Higher Current Diodes in Small Form Factor
- Utilizes DTI's High Performance XOE™ Technology
- Molded Plastic Body, ANSI/UL94 V-0 Rated Material

## Specifications[1]

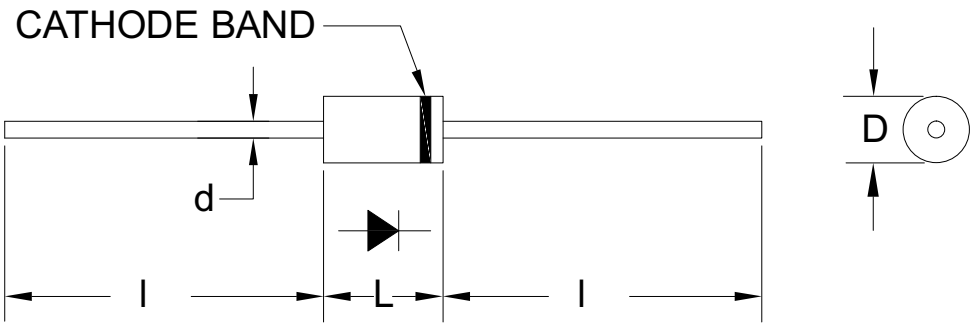
| Part Number | $V_{RRM}$ V | $I_{FAVM1}$ mA | $I_{FAVM2}$ mA | $V_F$ V | $I_R$ µA | $I_{FSM}$ A | $C_J$ pF | $T_{RR}$ nS | $R_{\theta JA}$[2] °C/W | $E_{RSM}$ mJ | L in. | D in. | d in. | l in. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **XGF06** | 6000 | 300 | 150 | 10.2 | 0.2 | 15 | 5.4 | 80 | 73 | 200 | 0.32 | 0.12 | 0.025 | 1.0 |
| **XGF07** | 7000 | 260 | 130 | 10.6 | 0.2 | 15 | 5.0 | 80 | 73 | 300 | 0.32 | 0.12 | 0.025 | 1.0 |
| **XGF08** | 8000 | 240 | 120 | 11.0 | 0.2 | 15 | 4.7 | 80 | 73 | 350 | 0.32 | 0.12 | 0.025 | 1.0 |
| **XGF10** | 10000 | 200 | 100 | 11.5 | 0.2 | 15 | 4.5 | 80 | 73 | 500 | 0.32 | 0.12 | 0.025 | 1.0 |
| **XGF12** | 12000 | 180 | 90 | 15.9 | 0.2 | 15 | 3.0 | 80 | 62 | 500 | 0.40 | 0.12 | 0.025 | 1.0 |
| **XGF15** | 15000 | 160 | 80 | 20.2 | 0.2 | 15 | 2.5 | 80 | 62 | 500 | 0.40 | 0.12 | 0.025 | 1.0 |
| **XGF20** | 20000 | 160 | 80 | 28.6 | 0.2 | 15 | 2.3 | 80 | 62 | 500 | 0.47 | 0.12 | 0.025 | 1.0 |

| Temperature °C | |
|---|---|
| **Operating Temperature** | -55 to 125 |
| **Storage Temperature** | -55 to 175 |
| **Maximum Junction Temperature** | 125 |

[1]25°C ambient temperature unless stated otherwise.

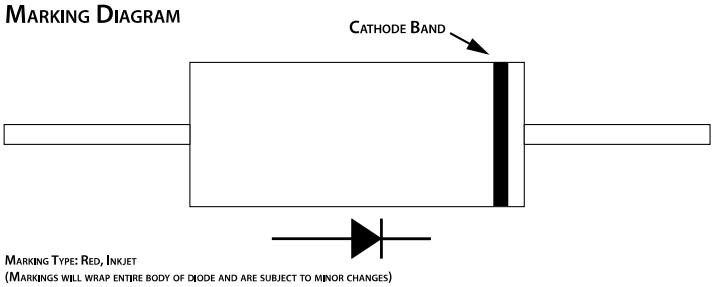
[2]Check Specification Definitions for conditions details.

## Drawings



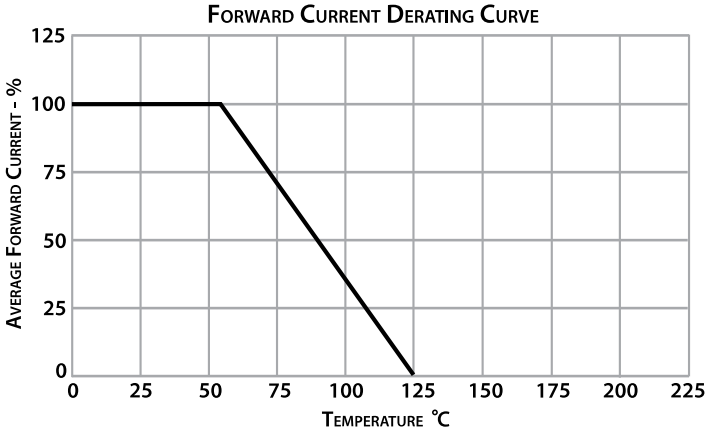

Dimensions in inches, tolerances ±0.020 except as noted

### Marking Diagram

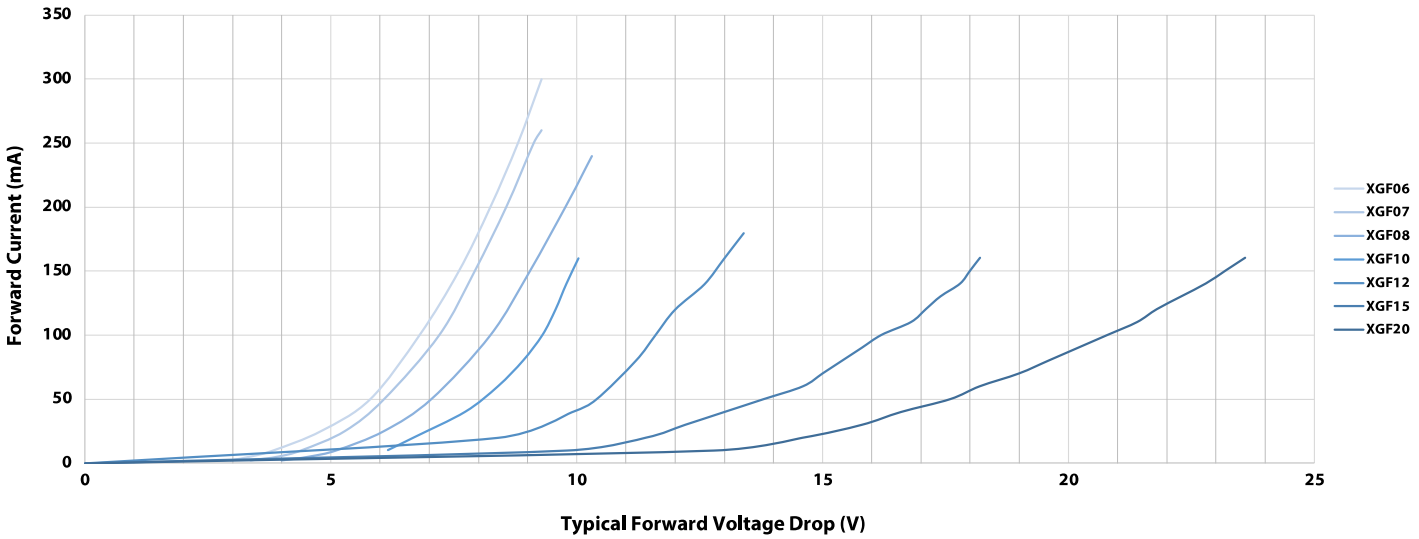



Marking Type: Red, Inkjet
(Markings will wrap entire body of diode and are subject to minor changes)

### Forward Current Derating Curve



**Forward Current vs. Typical Forward Voltage Drop, $T_A$ = 25°C**
**XGF Series**




## Specification Definitions

| Specifications | | Conditions |
|---|---|---|
| $V_{RRM}$ | Maximum Repetitive Reverse Voltage | - |
| $I_{FAVM1}$ | Maximum Average Forward Current | At $T_A$ = 55°C, in Oil |
| $I_{FAVM2}$ | Maximum Average Forward Current | At $T_A$ = 55°C |
| $V_F$ | Maximum Forward Voltage Drop | At $I_{FAVM\ (OIL)}$, $t_{PW}$ = 100µsec |
| $I_R$ | Maximum Leakage Current | At $V_{RRM}$ |
| $I_{FSM}$ | Maximum Surge Current | At 8.3mS, Single Half Sine |
| $C_J$ | Typical Junction Capacitance | At $V_R$ = 0VDC, f = 1MHz |
| $T_{RR}$ | Maximum Reverse Recovery Time | $I_F$ = 40mA; $I_R$ = -100mA; $I_{RR}$ = -20mA |
| $R_{\theta JA}$ | Typical Thermal Resistance | Junction to Ambient, in Air *(XGF06 to XGF10)*<br>Junction to Oil, in Dielectric Oil *(XGF12 to XGF20)* |
| $E_{RSM}$ | Maximum Reverse Energy Withstand | - |

RoHS COMPLIANT

Note: Specifications subject to change without notice. Photo is representation only.