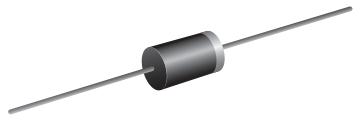
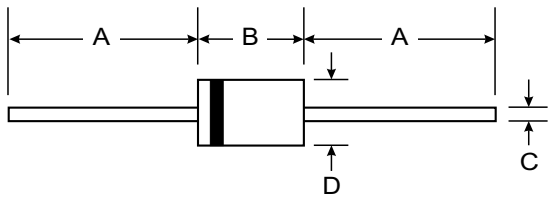
FGP30B - FGP30D

GLASS PASSIVATED ULTRAFAST RECTIFIER DIODES

VOLTAGE RANGE: 100 - 200V
CURRENT: 3.0 A





DO-201AD		
Dim	**Min**	**Max**
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

Features

- High current capability
- High surge current capability
- High reliability
- Low reverse current
- Low forward voltage drop
- Super fast recovery time

Mechanical Data

- Case : DO-201AD Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 1.21 grams

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	FGP30B	FGP30C	FGP30D	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	100	150	200	Volts
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 55 °C	$I_{F(AV)}$	3.0			Amps.
Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	125			Amps.
Maximum Peak Forward Voltage at I_F = 3.0 A.	V_F	0.95			Volts
Maximum DC Reverse Current Ta = 25 °C	I_R	5			μA
at Rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$	50			μA
Maximum Reverse Recovery Time (Note 1)	Trr	35			ns
Typical Junction Capacitance (Note 2)	C_J	50			pf
Junction Temperature Range	T_J	- 65 to + 150			°C
Storage Temperature Range	T_{STG}	- 65 to + 150			°C

Notes :

(1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 A.

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V_{DC}

Ratings and Characteristics Curves (T_A = 25 °C unless otherwise specified)

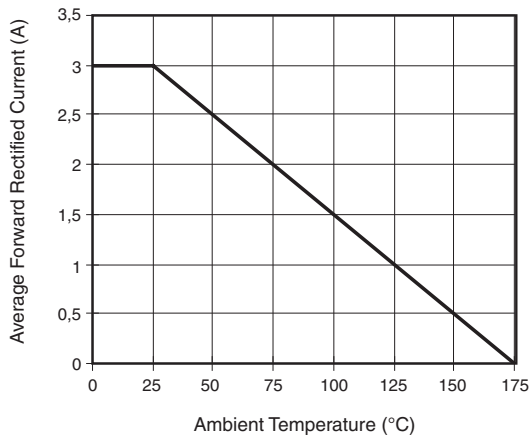


Figure 1. Maximum Forward Current Derating Curve

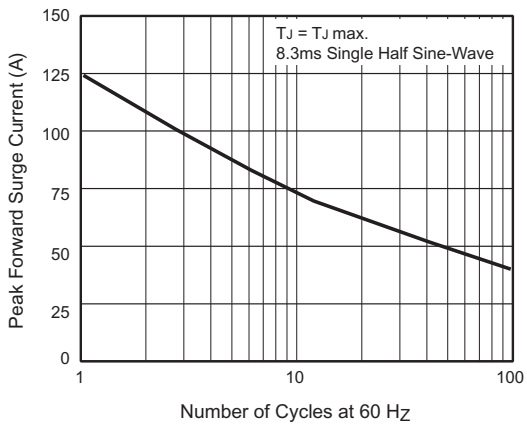


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

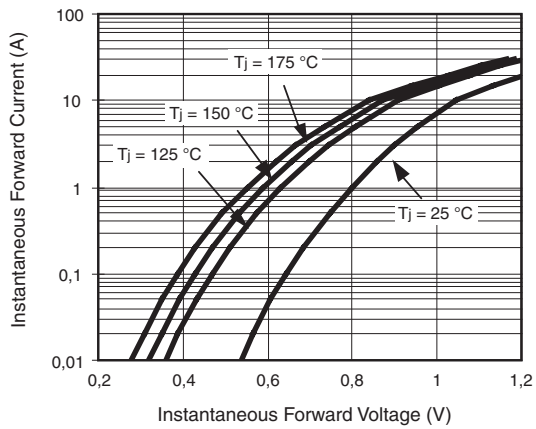


Figure 3. Typical Instantaneous Forward Characteristics

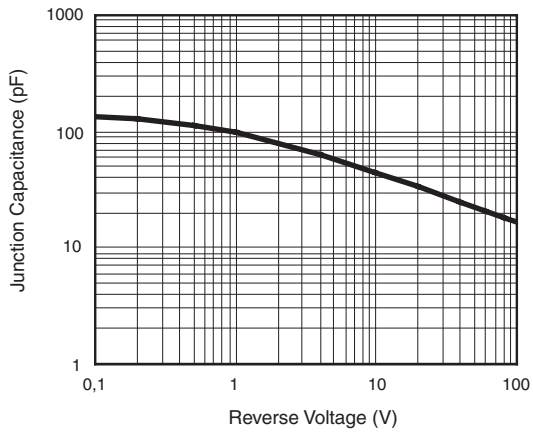


Figure 5. Typical Junction Capacitance

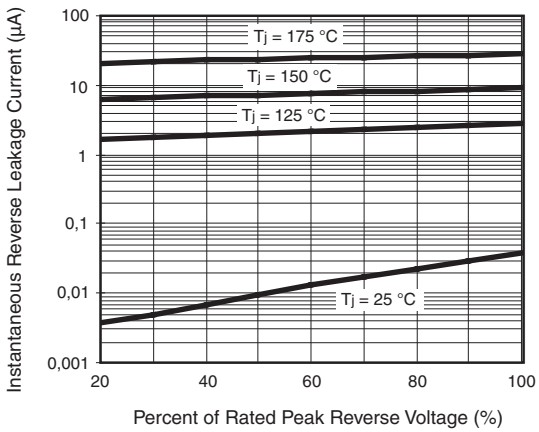


Figure 4. Typical Reverse Leakage Characteristics

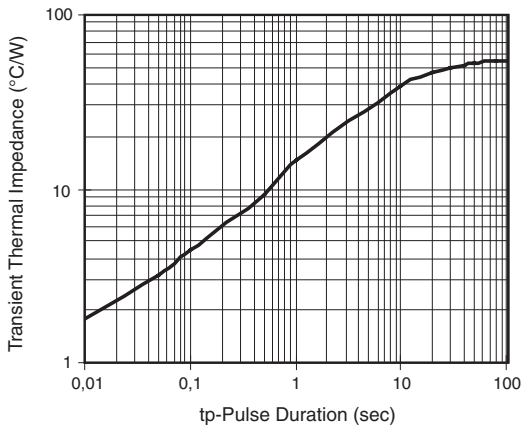


Figure 6. Typical Transient Thermal Impedance