



FR301G THRU FR307G

GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

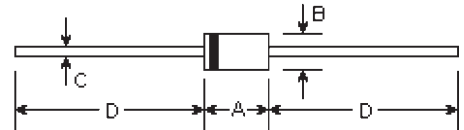
Reverse Voltage - 50 to 1000 Volts

Forward Current - 3.0 Amperes

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame retardant epoxy molding compound
- Glass passivated junction in DO-201AD package
- 3.0 ampere operation at $T_A=55^\circ\text{C}$ with no thermal runaway
- Fast switching for high efficiency

DO-201AD



Mechanical Data

- **Case:** Molded plastic, DO-201AD
- **Terminals:** Axial leads, solderable per MIL-STD-202, method 208
- **Polarity:** Band denotes cathode
- **Mounting Position:** Any
- **Weight:** 0.042 ounce, 1.195 grams

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.283	0.374	7.20	9.50	
B	0.189	0.208	4.80	5.30	φ
C	0.048	0.051	1.20	1.30	φ
D	1.000	-	25.40	-	

Maximum Ratings and Electrical Characteristics @25°C unless otherwise specified

	Symbols	FR 301G	FR 302G	FR 303G	FR 304G	FR 305G	FR 306G	FR 307G	Units
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Average forward rectified current at T _A =55°C	I _(AV)	3.0							Amps
Peak forward surge current 8.3mS single half sine-wave	I _{FSM}	125.0							Amps
Maximum instantaneous forward voltage I _{FM} =3.0A; T _A =25°C (Note 1)	V _F	1.3							Volts
Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =55°C	I _R	5.0 100.0							μ A
Maximum reverse recovery time at I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	T _{rr}	150				250	500		nS
Typical junction capacitance Measured at 1.0MHz, V _R =4.0V	C _J	50.0							p F
Operating and storage temperature range	T _J , T _{STG}	-65 to +175							°C

Note:

(1) Pulse test: Pulse width 300uSec, Duty cycle 1%

RATINGS AND CHARACTERISTIC CURVES

Figure 1
Typical Forward Characteristics

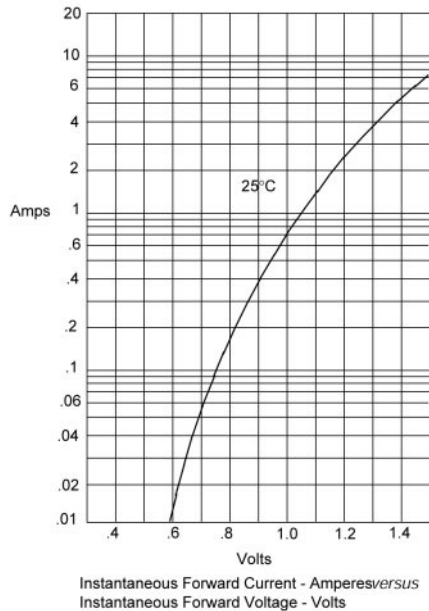


Figure 2
Forward Derating Curve

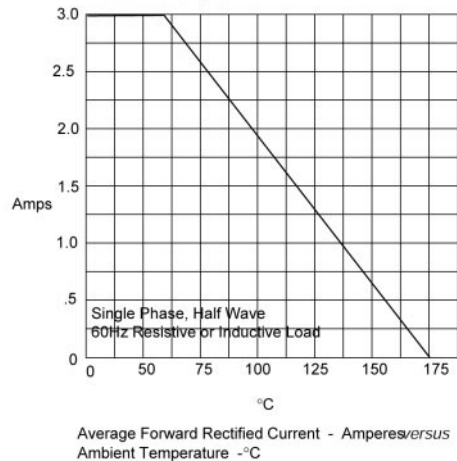
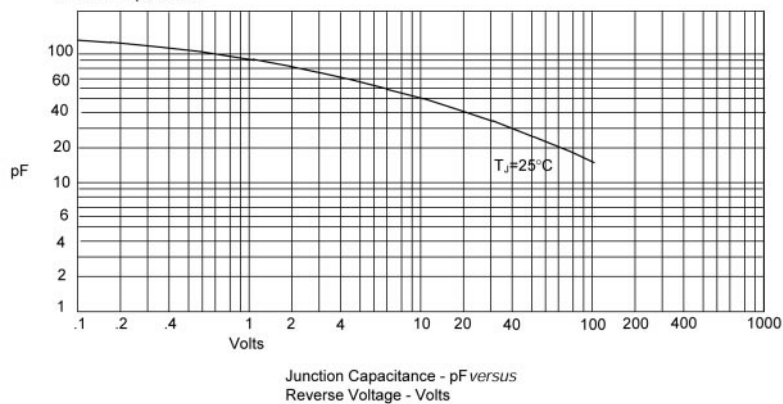


Figure 3
Junction Capacitance



RATINGS AND CHARACTERISTIC CURVES

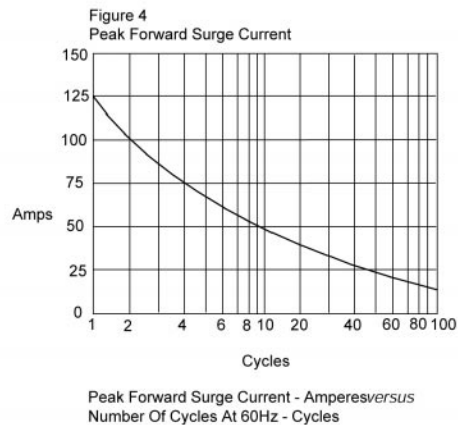


Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram

