

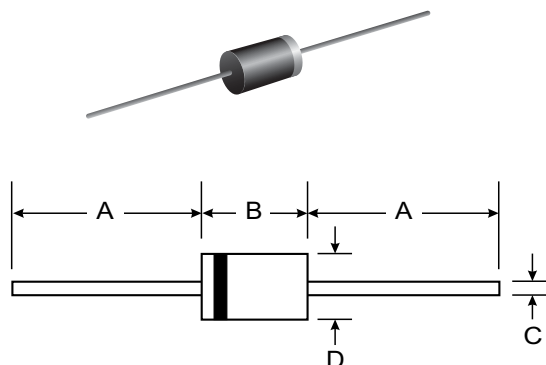
VOLTAGE RANGE: 50V-1300 V
CURRENT: 3.0 A

Features

- High efficiency, Low VF
- High current capability
- High reliability
- High surge current capability
- Low power loss.

Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



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		

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

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

Type Number	Symbol	FR 301	FR 302	FR 303	FR 304	FR 305	FR 306	FR 307	FR 308	FR 309	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	1200	1300	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	840	910	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	1200	1300	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @T _A = 55 °C	I _(AV)	3.0									A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150									A
Maximum Instantaneous Forward Voltage @ 3.0A	V _F	1.2									V
Maximum DC Reverse Current @ T _A =25 °C at Rated DC Blocking Voltage @ T _A =125 °C	I _R	5 150									uA uA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150				250	500				nS
Typical Junction Capacitance (Note 2)	C _j	60									pF
Typical Thermal resistance (Note 3)	R _{θJA}	40									°C/W
Operating Temperature Range	T _J	-65 to +150									°C
Storage Temperature Range	T _{STG}	-65 to +150									°C

Notes: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.
3. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES (FR301 THRU FR309)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

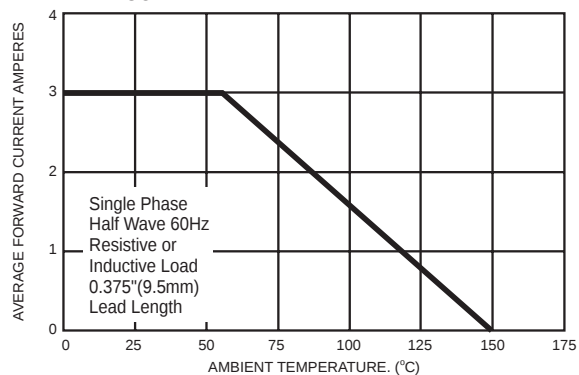


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER LEG

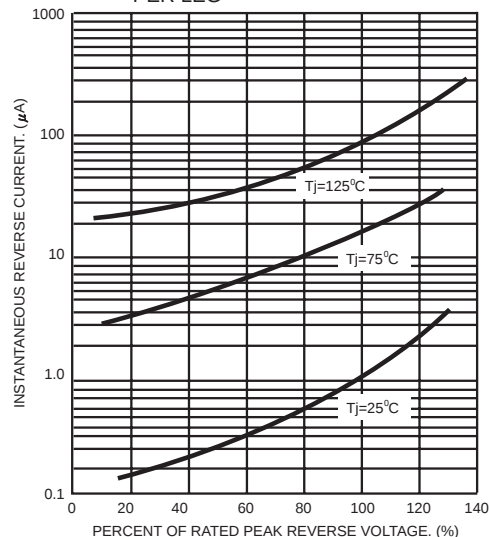


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

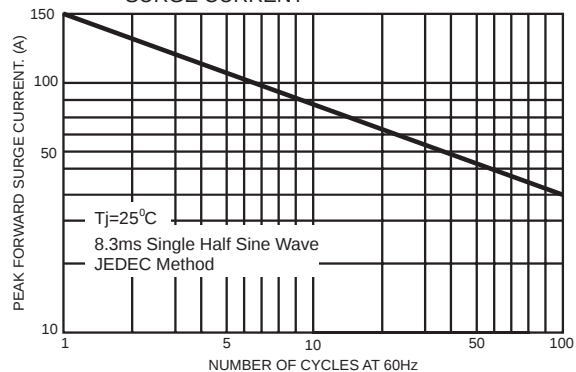


FIG.5- TYPICAL FORWARD CHARACTERISTICS

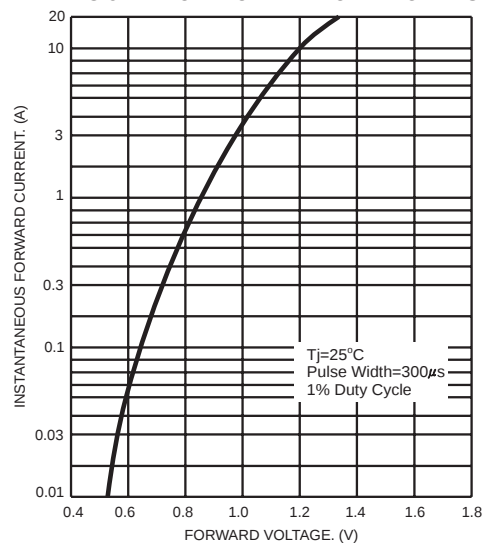


FIG.4- TYPICAL JUNCTION CAPACITANCE

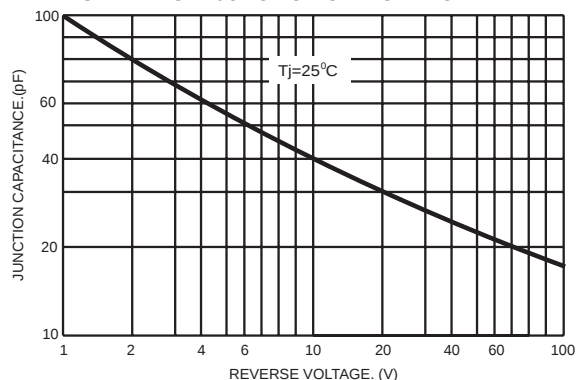


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

