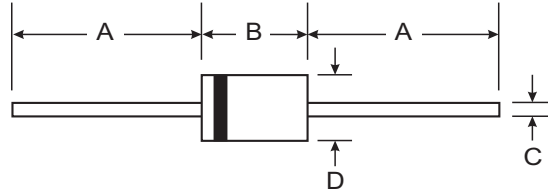


### Features

- High Current Capability and Low Forward Drop
- High Surge Capacity
- Guard Ring for Transient Protection
- Low Power Loss, High Efficiency
- **Lead Free Finish, RoHS Compliant (Note 3)**



### Mechanical Data

- Case: DO-201AD
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish - Bright Tin. Solderable per MIL-STD-202, Method 208
- Polarity: Cathode band
- Mounting Position: Any
- Weight: 1.1 grams (approximate)

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<sub>A</sub> = 25°C unless otherwise specified

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

Characteristic	Symbol	SD830	SD840	SD845	SD860	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	30	40	45	60	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21	28	31.5	42	V
Maximum Average Forward Rectified Current T <sub>L</sub> = 90°C	I <sub>O</sub>	8.0				A
Peak Forward Surge current 8.3ms half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	175				A
Maximum Forward Voltage at 8.0A	V <sub>F</sub>	0.55			0.70	V
Maximum Average Reverse Current at Peak Reverse Voltage T <sub>A</sub> = 25°C T <sub>A</sub> = 100°C	I <sub>R</sub>	1.0 50				mA
Typical Thermal Resistance (Note 1)	R <sub>θJL</sub>	30				K/W
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	550				pF
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150				°C

- Notes:
1. Thermal Resistance from Junction to Lead Vertical PC Board Mounting, 9.5mm Lead Length.
  2. Measured at 1.0MHz and applied reverse voltage of 4.0V.
  3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7*.

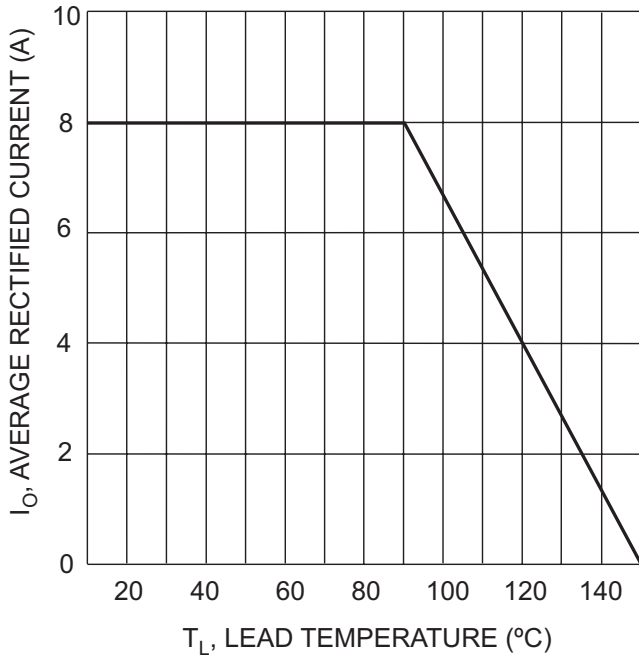


Fig. 1 Forward Current Derating Curve

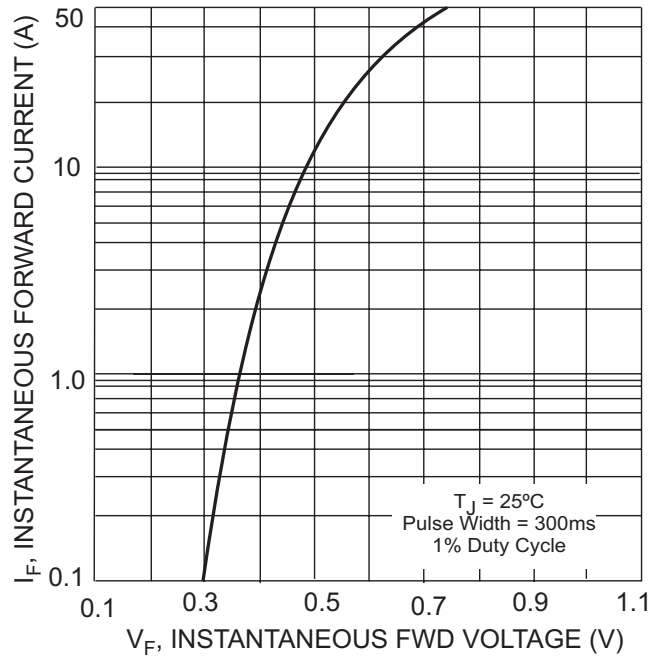


Fig. 2 Typical Forward Characteristics

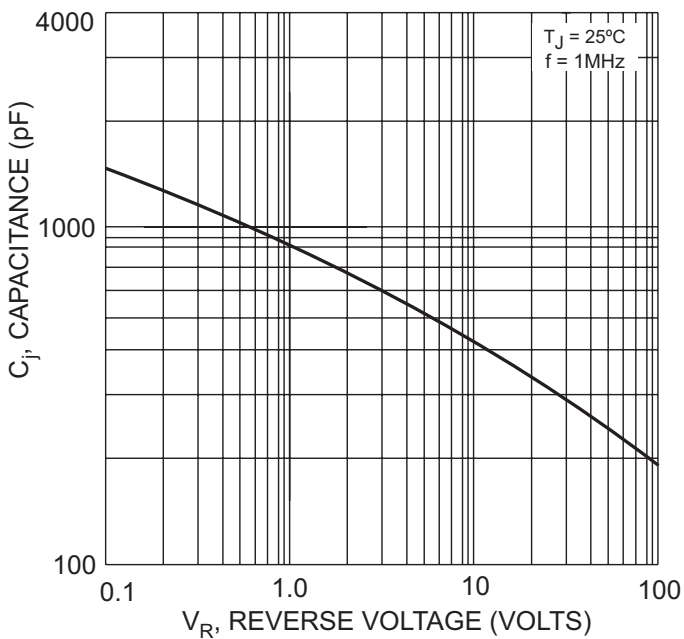


Fig. 3 Typical Junction Capacitance

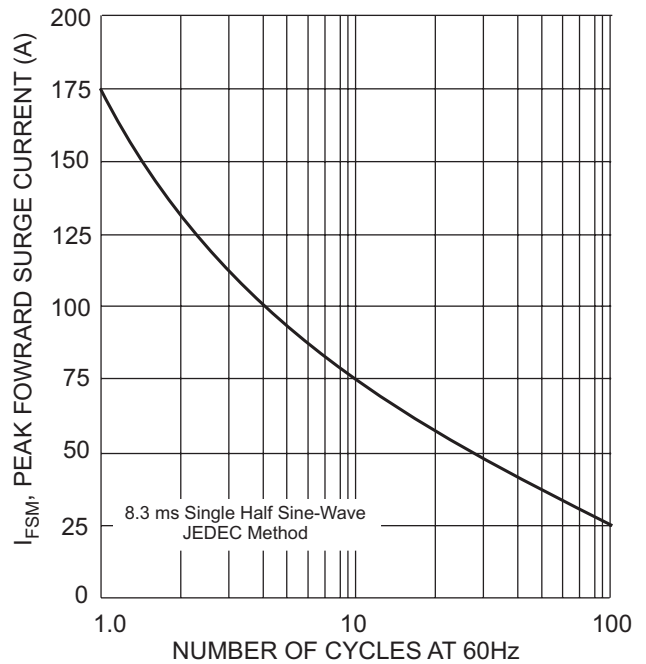


Fig. 4 Max Non-Repetitive Peak Fwd Surge Current

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