

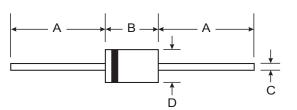
2.0A RECTIFIER

# **Features**

- **Diffused Junction**
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 70A Peak
- Lead Free Finish, RoHS Compliant (Note 3)

# **Mechanical Data**

- Case: DO-15
- 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 @3
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.4 grams (approximate)



DO-15					
Dim	Min	Max			
Α	25.40	_			
В	5.50	7.62			
С	0.686	0.889			
D	2.60	3.6			
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	2A01	2A02	2A03	2A04	2A05	2A06	2A07	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)	Io	2.0				А			
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	м 70			Α				
Forward Voltage @ I <sub>F</sub> = 2.0A	V <sub>FM</sub>	V <sub>FM</sub> 1.1			V				
Peak Reverse Leakage Current at Rated DC Blocking Voltage @ T <sub>A</sub> = 25°C @ T <sub>A</sub> = 100°C					5.0 50				μΑ
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t				17.5				A <sup>2</sup> s
Typical Total Capacitance (Note 2)	Ст				15				pF
Typical Thermal Resistance Junction to Ambient (Note 1)		60					°C/W		
Operating and Storage Temperature Range		-65 to +150					°C		

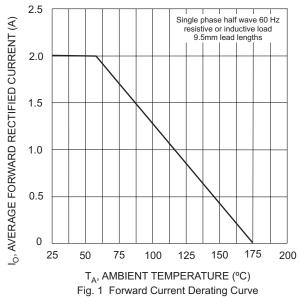
- Notes: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
  - 2. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V DC.
  - 3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.



75

0

1



I<sub>F</sub>, INSTANTANEOUS FORWARD CURRENT (A) 0.1 Pulse Width = 300µs 0.01 8.0

10

1.0

 $_{\rm IPSM}$ , PEAK FORWARD SURGE CURRENT (A) 60 45 30 15

100 C<sub>T</sub>, TOTAL CAPACITANCE (pF) 10 1.0 1.0 10 100  $V_R$ , REVERSE VOLTAGE (V) Fig. 4 Typical Total Capacitance

VF, INSTANTANEOUS FORWARD VOLTAGE (V)

Fig. 2 Typical Forward Characteristics

T<sub>i</sub> = 25°C

NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

10

8.3ms Single half sine-wave

100

#### **Ordering Information** (Note 4)

Device	Packaging	Shipping
2A01-T	DO-15	4K/Tape & Reel, 13-inch
2A02-T	DO-15	4K/Tape & Reel, 13-inch
2A03-T	DO-15	4K/Tape & Reel, 13-inch
2A04-T	DO-15	4K/Tape & Reel, 13-inch
2A05-T	DO-15	4K/Tape & Reel, 13-inch
2A06-T	DO-15	4K/Tape & Reel, 13-inch
2A07-T	DO-15	4K/Tape & Reel, 13-inch

Notes: 4. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf.



### IMPORTANT NOTICE

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. Diodes Incorporated does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on our website, harmless against all damages.

## LIFE SUPPORT

Diodes Incorporated products are not authorized for use as critical components in life support devices or systems without the expressed written approval of the President of Diodes Incorporated.