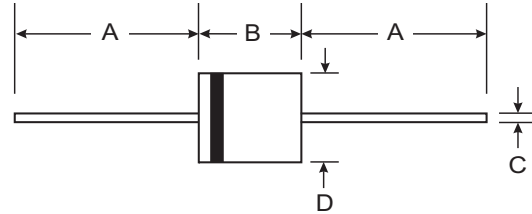


### Features

- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 600A Peak
- Low Reverse Leakage Current
- **Lead Free Finish, RoHS Compliant (Note 3)**

### Mechanical Data

- Case: R-6
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish — Tin. Plated Leads Solderable per MIL-STD-202, Method 208 (E3)
- Polarity: Cathode Band
- Ordering Information: See Last Page
- Marking: Type Number
- Weight: 2.1 grams (approximate)



R-6		
Dim	Min	Max
A	25.40	—
B	8.60	9.10
C	1.20	1.30
D	8.60	9.10
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	10A01	10A02	10A03	10A04	10A05	10A06	10A07	Unit	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Working Peak Reverse Voltage	V <sub>RWM</sub>									
DC Blocking Voltage	V <sub>R</sub>									
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V	
Average Rectified Output Current (Note 1)	I <sub>O</sub>	10							A	
		@ T <sub>A</sub> = 50°C								
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	600							A	
Forward Voltage	V <sub>FM</sub>	1.0							V	
		@ I <sub>F</sub> = 10A								
10Peak Reverse Current	I <sub>RM</sub>	10							μA	
		@ T <sub>A</sub> = 25°C								
		@ T <sub>A</sub> = 100°C								
Typical Total Capacitance (Note 2)	C <sub>T</sub>	150				80				pF
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	10							°C/W	
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-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*.



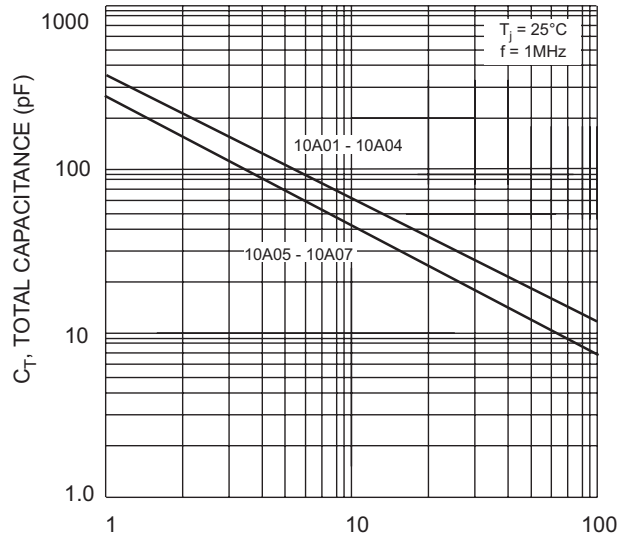
T<sub>A</sub>, AMBIENT TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



I<sub>FSM</sub>, PEAK FORWARD SURGE CURRENT (A)  
Fig. 3 Maximum Non-Repetitive Peak Forward Surge Current



V<sub>R</sub>, REVERSE VOLTAGE (V)  
Fig. 4 Typical Total Capacitance

**Ordering Information** (Note 4)

Device	Packaging	Shipping
10A01-T	R-6	500/Tape & Reel, 13-inch
10A02-T	R-6	500/Tape & Reel, 13-inch
10A03-T	R-6	500/Tape & Reel, 13-inch
10A04-T	R-6	500/Tape & Reel, 13-inch
10A05-T	R-6	500/Tape & Reel, 13-inch
10A06-T	R-6	500/Tape & Reel, 13-inch
10A07-T	R-6	500/Tape & Reel, 13-inch

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

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