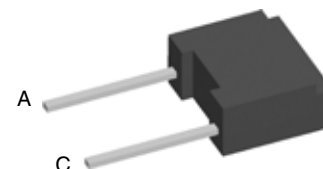
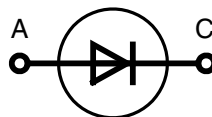


## Avalanche Diode

Preliminary data

| $V_{RSM}$<br>V | $V_{(BR)min}$<br>V | $V_{RRM}$<br>V | Type      |
|----------------|--------------------|----------------|-----------|
| 1300           | 1300               | 1200           | DSA 1-12D |
| 1700           | 1750               | 1600           | DSA 1-16D |
| 1900           | 1950               | 1800           | DSA 1-18D |



A = Anode, C = Cathode

| Symbol     | Conditions                                               | Maximum Ratings |                  |
|------------|----------------------------------------------------------|-----------------|------------------|
| $I_{FRMS}$ | $T_{VJ} = T_{VJM}$                                       | 7               | A                |
| $I_{FAVM}$ | $T_{amb} = 45^{\circ}C$ ; $R_{thJA} = 38$ K/W; 180° sine | 2.3             | A                |
|            | $T_{amb} = 45^{\circ}C$ ; $R_{thJA} = 80$ K/W; 180° sine | 1.3             | A                |
| $P_{RSM}$  | $T_{VJM}$ , $t_p = 10$ ms                                | 1.6             | kW               |
| $I_{FSM}$  | $T_{VJ} = 45^{\circ}C$ ; $t = 10$ ms (50 Hz), sine       | 110             | A                |
|            | $t = 8.3$ ms (60 Hz), sine                               | 118             |                  |
|            | $T_{VJ} = 150^{\circ}C$ ; $t = 10$ ms (50 Hz), sine      | 100             | A                |
|            | $t = 8.3$ ms (60 Hz), sine                               | 104             |                  |
| $I^2t$     | $T_{VJ} = 45^{\circ}C$ ; $t = 10$ ms (50 Hz), sine       | 60              | A <sup>2</sup> s |
|            | $t = 8.3$ ms (60 Hz), sine                               | 58              |                  |
|            | $T_{VJ} = 150^{\circ}C$ ; $t = 10$ ms (50 Hz), sine      | 50              | A <sup>2</sup> s |
|            | $t = 8.3$ ms (60 Hz), sine                               | 45              |                  |
| $T_{VJ}$   |                                                          | -40...+150      | °C               |
| $T_{VJM}$  |                                                          | 150             | °C               |
| $T_{stg}$  |                                                          | -40...+150      | °C               |
| Weight     | typical                                                  | 0.8             | g                |

### Features

- Plastic standard package
- Planar passivated chips

### Applications

- Low power rectifiers
- Field supply for DC motors
- Power supplies
- High voltage rectifiers

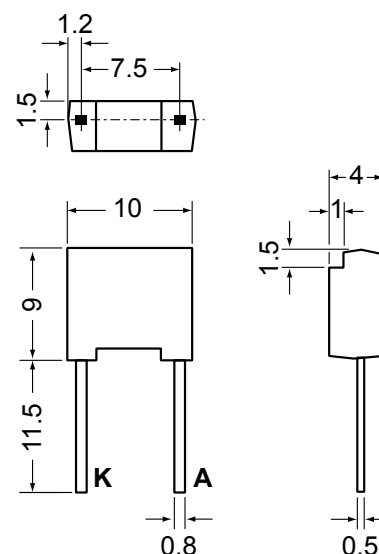
### Advantages

- Space and weight savings
- Simple PCB mounting
- Improved temperature & power cycling
- Reduced protection circuits

| Symbol     | Conditions                                                                                                   | Characteristic Values |          |                  |
|------------|--------------------------------------------------------------------------------------------------------------|-----------------------|----------|------------------|
|            |                                                                                                              | typ.                  | max.     |                  |
| $I_R$      | $V_R = V_{RRM}$ $T_{VJ} = T_{VJM}$                                                                           |                       | 0.7      | mA               |
| $V_F$      | $I_F = 7$ A $T_{VJ} = 25^{\circ}C$                                                                           |                       | 1.34     | V                |
| $V_{T0}$   | For power-loss calculations only                                                                             |                       | 0.8      | V                |
| $r_T$      | $T_{VJ} = T_{VJM}$                                                                                           |                       | 67       | mΩ               |
| $R_{thJA}$ | Forced air cooling with 1.5 m/s, $T_{amb} = 45^{\circ}C$<br>Soldered on to PC board, $T_{amb} = 45^{\circ}C$ |                       | 38<br>80 | K/W<br>K/W       |
| $d_s$      | Creepage distance on surface                                                                                 |                       | 8.5      | mm               |
| $d_A$      | Strike distance through air                                                                                  |                       | 6.7      | mm               |
| $a$        | Max. allowable acceleration                                                                                  |                       | 100      | m/s <sup>2</sup> |

Data according to IEC 60747

Dimensions in mm (1 mm = 0.0394")



IXYS reserves the right to change limits, test conditions and dimensions.

20110114a

© 2011 IXYS All rights reserved

1 - 1

# AMEYA360

## Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit [www.ameya360.com](http://www.ameya360.com)

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd  
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email [amall@ameya360.com](mailto:amall@ameya360.com)

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email [service@ameya360.com](mailto:service@ameya360.com)

➤ Partnership :

Tel +86 (21) 64016692-8333

Email [mkt@ameya360.com](mailto:mkt@ameya360.com)