

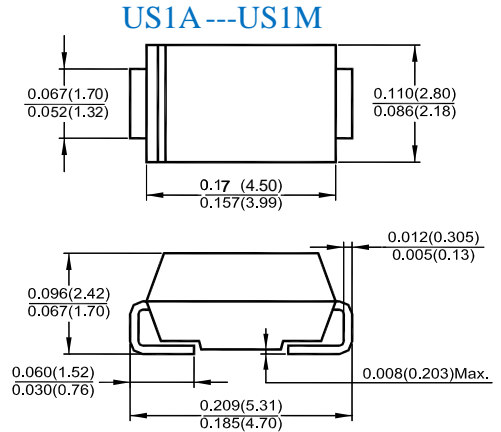
FAST RECOVERY RECTIFIERS

FEATURES

- For surface mount applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratories Flammability Classification 94V-0

MECHANICAL DATA

- SMA (DO-214AC) molded plastic
- Polarity: Color band denotes cathode end



Dimensions in inches and (millimeters)  
DO-214AC (SMA)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter   | Symbols                        | US1A          | US1B | US1D | US1G | US1J | US1K | US1M | Unit |
|---|--------------------------------|---------------|------|------|------|------|------|------|------|
| Maximum Repetitive Peak Reverse Voltage   | V <sub>RRM</sub>               | 50            | 100  | 200  | 400  | 600  | 800  | 1000 | V    |
| Maximum RMS Voltage   | V <sub>RMS</sub>               | 35            | 70   | 140  | 280  | 420  | 560  | 700  | V    |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>                | 50            | 100  | 200  | 400  | 600  | 800  | 1000 | V    |
| Maximum Average Forward Rectified Current at T <sub>L</sub> = 100 °C                                    | I <sub>F(AV)</sub>             | 1             |      |      |      |      |      |      | A    |
| Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)       | I <sub>FSM</sub>               | 30            |      |      |      |      |      |      | A    |
| Maximum Forward Voltage at 1 A  | V <sub>F</sub>                 | 1             |      | 1.4  |      | 1.7  |      | V    |      |
| Maximum DC Reverse Current at Rated DC Blocking Voltage   | I <sub>R</sub>                 | 5             |      |      |      |      |      |      | μA   |
|   |                                | 100           |      |      |      |      |      |      |      |
| Typical Junction Capacitance at 4 V, 1 MHz  | C <sub>J</sub>                 | 17            |      |      |      |      |      |      | pF   |
| Maximum Reverse Recovery Time at I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1 A, I <sub>TR</sub> = 0.25 A | t <sub>rr</sub>                | 50            |      |      |      | 75   |      |      | ns   |
| Typical Thermal Resistance <sup>1)</sup>  | R <sub>JA</sub>                | 50            |      |      |      |      |      |      | °C/W |
| Operating and Storage Temperature Range   | T <sub>J</sub> ,T <sub>S</sub> | - 55 to + 150 |      |      |      |      |      |      | °C   |

1)Mounted on P.C.B. with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

US1A--US1M Typical Characteristics

