

**SURFACE MOUNT  
SUPER FAST RECTIFIERS**

REVERSE VOLTAGE - **50 to 400** Volts  
FORWARD CURRENT - **1.0** Ampere

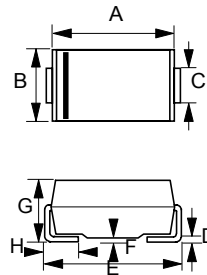
**FEATURES**

- Glass passivated chip
- Super fast switching for high efficiency
- For surface mounted applications
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

**MECHANICAL DATA**

- Case : Molded plastic
- Polarity : Indicated by cathode band
- Weight : 0.002 ounces, 0.064 grams

**SMA**



| SMA  |      |      |
|------|------|------|
| DIM. | MIN. | MAX. |
| A    | 4.06 | 4.57 |
| B    | 2.29 | 2.92 |
| C    | 1.27 | 1.63 |
| D    | 0.15 | 0.31 |
| E    | 4.83 | 5.59 |
| F    | 0.05 | 0.20 |
| G    | 2.01 | 2.62 |
| H    | 0.76 | 1.52 |

All Dimensions in millimeter

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

| CHARACTERISTICS   | SYMBOL | ES1A         | ES1B | ES1C | ES1D | ES1G | ES1J | UNIT |
|---|--------|--------------|------|------|------|------|------|------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM   | 50           | 100  | 150  | 200  | 400  | 600  | V    |
| Maximum RMS Voltage   | VRMS   | 35           | 70   | 105  | 140  | 280  | 420  | V    |
| Maximum DC Blocking Voltage   | VDC    | 50           | 100  | 150  | 200  | 400  | 600  | V    |
| Maximum Average Forward Rectified Current @TL =110°C  | I(AV)  | 1.0          |      |      |      |      |      | A    |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD) | IFSM   | 30           |      |      |      |      |      | A    |
| Maximum forward Voltage at 1.0A DC  | VF     | 0.92         |      |      |      | 1.25 | 1.30 | V    |
| Maximum DC Reverse Current @TJ =25°C at Rated DC Blocking Voltage @TJ=125°C                       | IR     | 5.0<br>200   |      |      |      |      |      | uA   |
| Maximum Reverse Recovery Time (Note 1)  | TRR    | 25           |      |      |      |      | 35   | ns   |
| Typical Reverse Recovery Time   | TRR    | 20           |      |      |      |      | 30   | ns   |
| Typical Junction Capacitance (Note 2)   | CJ     | 10           |      |      |      |      |      | pF   |
| Typical Thermal Resistance (Note 3)   | Rθ JL  | 25           |      |      |      |      |      | °C/W |
| Operating Temperature Range   | TJ     | -55 to + 150 |      |      |      |      |      | °C   |
| Storage Temperature Range   | TSTG   | -55 to + 150 |      |      |      |      |      | °C   |

NOTES : 1.Reverse Recovery Test Conditions :IF=0.5A,IR=1.0A,IRR=0.25A.  
2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3.Thermal Resistance junction to Lead.

Datasheet.Support

