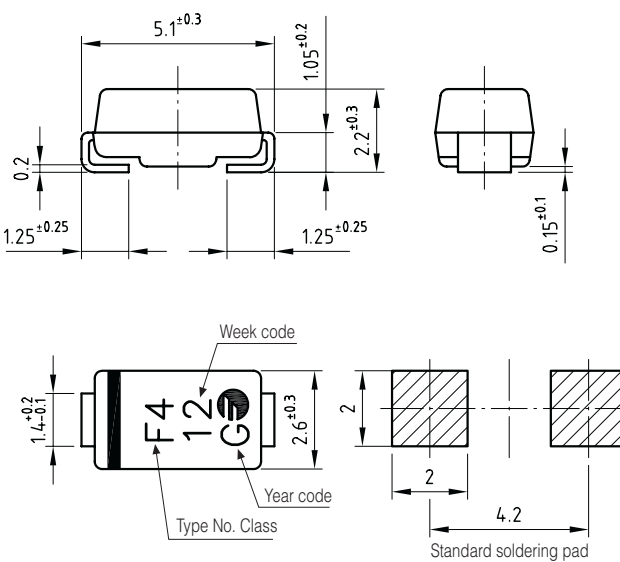



## 1.0 Amp. Surface Mounted Glass Passivated Ultrafast Efficient Rectifier

|                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Dimensions in mm.</b></p>  <p><b>CASE:</b><br/><b>SMA/DO-214AC</b></p> <p>Week code<br/>F4 12 C<br/>Year code<br/>Type No. Class</p> | <p><b>Voltage</b><br/>50 to 200 V</p> <p><b>Current</b><br/>1.0 A</p>  <ul style="list-style-type: none"> <li>Glass passivated junction</li> <li>High current capability</li> <li>The plastic material carries U/L 94 V-0</li> <li>Low profile package</li> <li>Easy pick and place</li> <li>High temperature soldering 260 °C 10 sec</li> </ul> <p><b>MECHANICAL DATA</b><br/>                 Terminals: Solder plated, solderable per IEC 68-2-20.<br/>                 Standard Packaging: 4 mm. tape (EIA-RS-481).<br/>                 Weight: 0.064 g.</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Maximum Ratings and Electrical Characteristics at 25 °C

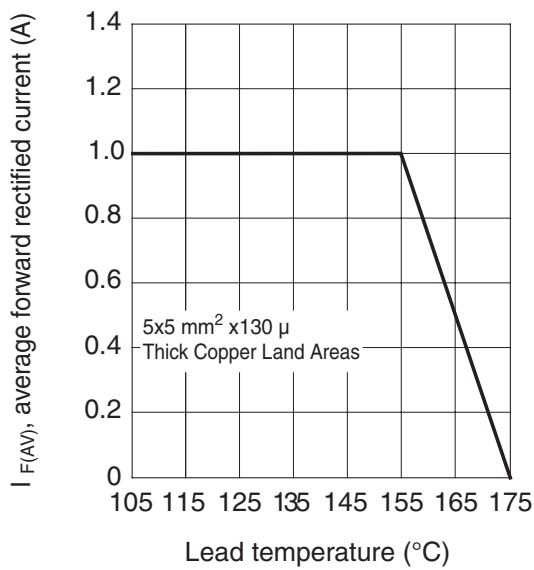
|                     |                                                                                                       | FUES1A                  | FUES1B | FUES1D |
|---------------------|-------------------------------------------------------------------------------------------------------|-------------------------|--------|--------|
| <b>Marking Code</b> |                                                                                                       | UA                      | UB     | UD     |
| $V_{RRM}$           | Maximum Recurrent Peak Reverse Voltage (V)                                                            | 50                      | 100    | 200    |
| $V_{RMS}$           | Maximum RMS Voltage (V)                                                                               | 35                      | 70     | 140    |
| $V_{DC}$            | Maximum DC Blocking voltage (V)                                                                       | 50                      | 100    | 200    |
| $I_{F(AV)}$         | Forward current at $T_L = 75\text{ °C}$                                                               | 1.0 A                   |        |        |
| $I_{FSM}$           | 8.3 ms. peak forward surge current (Jedec Method)                                                     | 30 A                    |        |        |
| $V_F$               | Max. Instantaneous Forward Voltage Drop at 1.0 A<br>at 0.6 A                                          | 0.920 V<br>0.865 V      |        |        |
| $I_R$               | Maximum DC Reverse Current $T_a = 25\text{ °C}$<br>at Rated DC Blocking Voltage $T_a = 125\text{ °C}$ | 1 $\mu$ A<br>25 $\mu$ A |        |        |
| $T_{rr}$            | Typical Reverse Recovery Time (0.5/1/0.25A)                                                           | 25 ns                   |        |        |
| $C_j$               | Typical Junction Capacitance (1MHz; -4V)                                                              | 8 pF                    |        |        |
| $R_{th(j-i)}$       | Typical Thermal Resistance                                                                            | 27 °C/W                 |        |        |
| $R_{th(j-a)}$       | (5x5 mm <sup>2</sup> x 130 $\mu$ Copper Area)                                                         | 75 °C/W                 |        |        |
| $T_j - T_{stg}$     | Operating Junction and Storage Temperature Range                                                      | -55 to + 175 °C         |        |        |

### Electrical Characteristics at $T_j = -40\text{ }^\circ\text{C}$ to $+150\text{ }^\circ\text{C}$

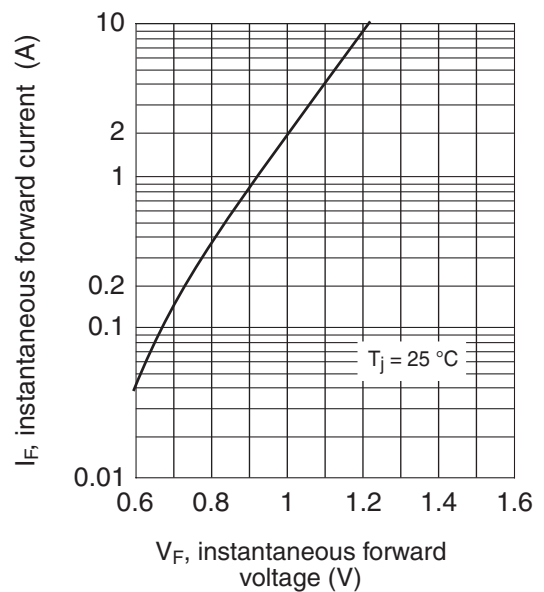
|       |                                                         |                    |
|-------|---------------------------------------------------------|--------------------|
| $V_F$ | Max. forward voltage drop at $I_F = 1\text{ A}$         | 1.05 V             |
| $I_R$ | Maximum DC Reverse Current at rated DC Blocking Voltage | 1500 $\mu\text{A}$ |

### Rating And Characteristic Curves

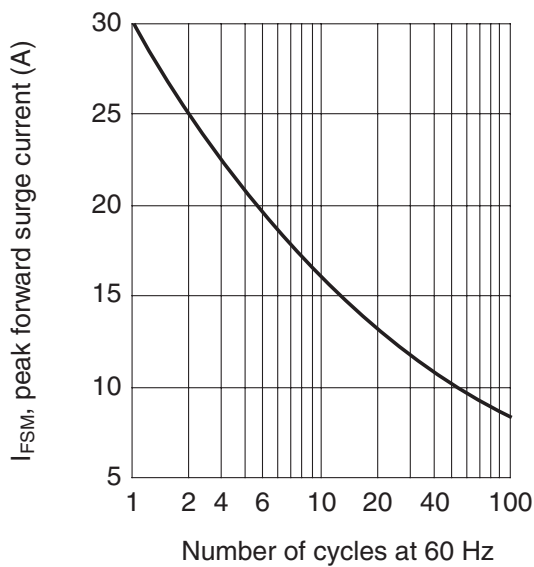
FORWARD CURRENT DERATING CURVE



TYPICAL FORWARD CHARACTERISTIC



MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE

