

# Ultra-Fast-Recovery Rectifier Diodes 200V

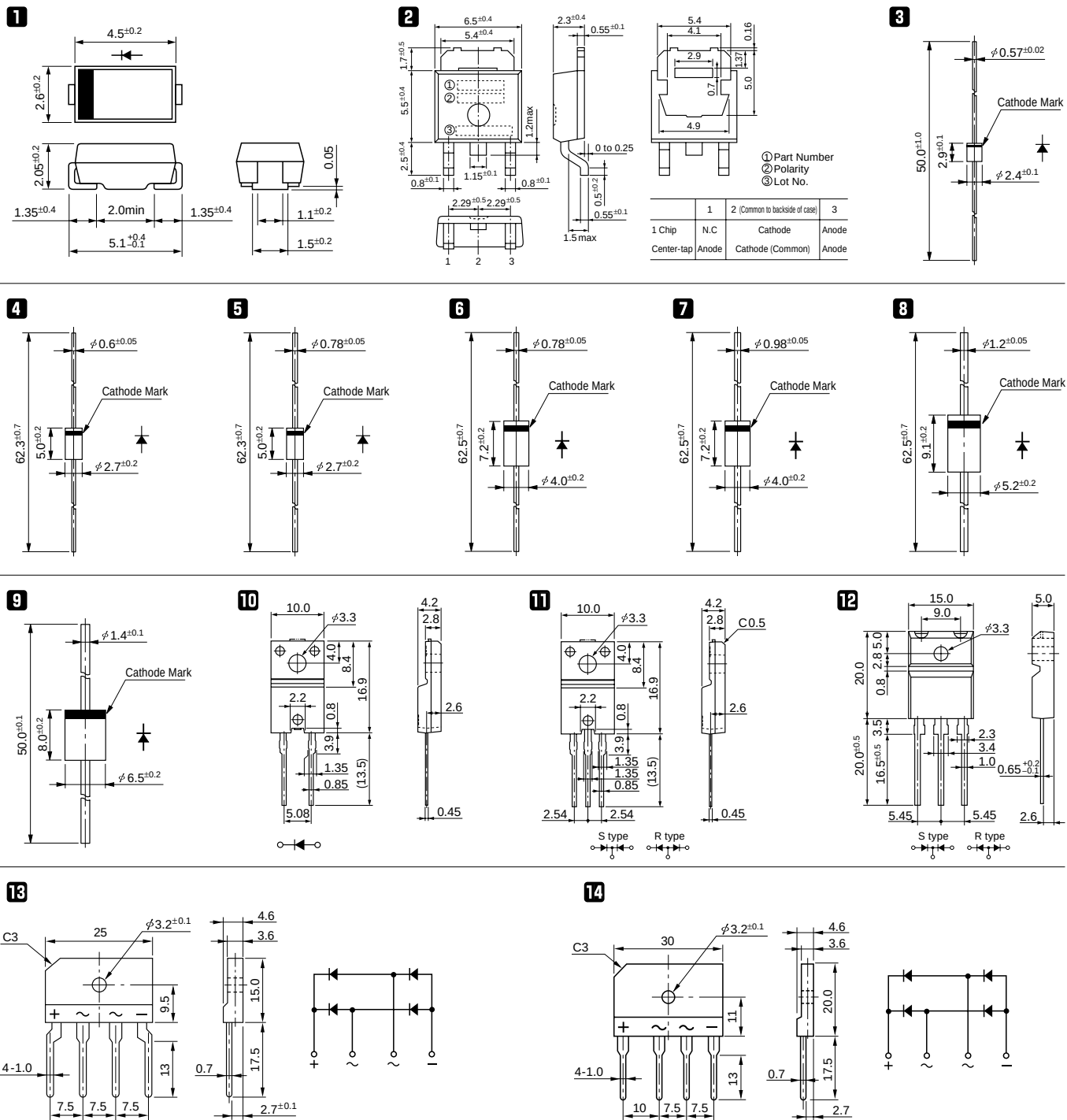
$t_{rr} \text{ ①: } I_F/I_R (=I_F) \text{ 90\% Recovery Point}$   
 (ex.  $I_F/I_R = 100\text{mA}/100\text{mA}$  90% Recovery Point)  
 $t_{rr} \text{ ②: } I_F/I_R (=2 I_F) \text{ 75\% Recovery Point}$   
 (ex.  $I_F/I_R = 100\text{mA}/200\text{mA}$  75% Recovery Point)

| V <sub>RM</sub><br>(V) | Package       | Part Number | I <sub>F</sub> (A)<br>(AV) | I <sub>FSM</sub><br>(A)                    | T <sub>J</sub><br>(°C) | T <sub>stg</sub><br>(°C) | V <sub>F</sub><br>(V)<br>max |                       | I <sub>R</sub><br>(μA)<br>V <sub>R</sub> = V <sub>RM</sub><br>max | I <sub>R</sub> (H)<br>(mA)<br>V <sub>R</sub> = V <sub>RM</sub><br>max |                        | t <sub>rr</sub> ①                       |                                         | t <sub>rr</sub> ② |     | R <sub>th</sub> (j-ℓ)<br>R <sub>th</sub> (j-c)<br>(°C/W) | Mass<br>(g) | Fig.<br>No. | Page where<br>characteristic<br>curve is shown |
|------------------------|---------------|-------------|----------------------------|--------------------------------------------|------------------------|--------------------------|------------------------------|-----------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------|-----------------------------------------|-----------------------------------------|-------------------|-----|----------------------------------------------------------|-------------|-------------|------------------------------------------------|
|                        |               |             |                            | 50Hz<br>Half-cycle Sinewave<br>Single Shot |                        |                          |                              | I <sub>F</sub><br>(A) |                                                                   |                                                                       | T <sub>a</sub><br>(°C) | I <sub>F</sub> /I <sub>FP</sub><br>(mA) | I <sub>F</sub> /I <sub>FP</sub><br>(mA) |                   |     |                                                          |             |             |                                                |
| 200                    | Surface Mount | SFPL-52     | 0.9                        | 25                                         | -40 to +150            | 0.98                     | 1.0                          | 10                    | 1                                                                 | 150 (T <sub>J</sub> )                                                 | 50                     | 100/100                                 | 35                                      | 100/200           | 20  | 0.072                                                    | 1           | 62          |                                                |
|                        |               | SFPL-62     | 1.0                        | 25                                         | -40 to +150            | 0.98                     | 1.0                          | 10                    | 1                                                                 | 150 (T <sub>J</sub> )                                                 | 50                     | 100/100                                 | 35                                      | 100/200           | 20  | 0.072                                                    |             |             |                                                |
|                        |               | SFPX-62     | 1.5                        | 30                                         | -40 to +150            | 0.98                     | 1.5                          | 10                    | 2                                                                 | 150 (T <sub>J</sub> )                                                 | 30                     | 100/100                                 | 25                                      | 100/200           | 20  | 0.072                                                    |             |             |                                                |
|                        |               | SPX-G32S    | 3.0                        | 50                                         | -40 to +150            | 0.98                     | 3.0                          | 50                    | 10                                                                | 100                                                                   | 30                     | 100/100                                 | 25                                      | 100/200           | 5.0 | 0.41                                                     | 2           | 63          |                                                |
|                        |               | SPX-62S     | 6.0                        | 80                                         | -40 to +150            | 0.98                     | 3.0                          | 50                    | 10                                                                | 100                                                                   | 30                     | 100/100                                 | 25                                      | 100/200           | 5.0 | 0.41                                                     |             |             |                                                |
|                        | Axial         | AG01Z       | 0.7                        | 15                                         | -40 to +150            | 1.8                      | 0.7                          | 100                   | 0.5                                                               | 100                                                                   | 100                    | 100/100                                 | 50                                      | 100/200           | 22  | 0.13                                                     | 3           | 63          |                                                |
|                        |               | EG01Z       | 0.7                        | 15                                         | -40 to +150            | 1.9                      | 0.7                          | 50                    | 0.3                                                               | 100                                                                   | 100                    | 100/100                                 | 50                                      | 100/200           | 20  | 0.2                                                      | 4           |             |                                                |
|                        |               | EG 1Z       | 0.8                        | 15                                         | -40 to +150            | 1.7                      | 0.8                          | 50                    | 0.3                                                               | 100                                                                   | 100                    | 100/100                                 | 50                                      | 100/200           | 17  | 0.3                                                      | 5           | 64          |                                                |
|                        |               | AL01Z       | 1.0                        | 25                                         | -40 to +150            | 0.98                     | 1.0                          | 100                   | 0.5                                                               | 100                                                                   | 50                     | 100/100                                 | 35                                      | 100/200           | 22  | 0.13                                                     | 3           | 63          |                                                |
|                        |               | EN01Z       | 1.0                        | 50                                         | -40 to +150            | 0.92                     | 1.0                          | 10                    | 2                                                                 | 150 (T <sub>J</sub> )                                                 | 100                    | 100/100                                 | 50                                      | 100/200           | 20  | 0.2                                                      | 4           | 64          |                                                |
|                        |               | RG 10Z      | 1.2                        | 50                                         | -40 to +150            | 1.5                      | 1.2                          | 500                   | 2.5                                                               | 100                                                                   | 100                    | 100/100                                 | 50                                      | 100/200           | 15  | 0.4                                                      | 6           | 65          |                                                |
|                        |               | RG 2Z       | 1.2                        | 50                                         | -40 to +150            | 1.5                      | 1.5                          | 500                   | 2.5                                                               | 100                                                                   | 100                    | 100/100                                 | 50                                      | 100/200           | 12  | 0.6                                                      | 7           | 67          |                                                |
|                        |               | EL02Z       | 1.5                        | 25                                         | -40 to +150            | 0.98                     | 1.5                          | 50                    | 0.1                                                               | 100                                                                   | 40                     | 100/100                                 | 30                                      | 100/200           | 20  | 0.2                                                      | 4           | 64          |                                                |
|                        |               | EL 1Z       | 1.5                        | 20                                         | -40 to +150            | 0.98                     | 1.5                          | 100                   | 0.5                                                               | 100                                                                   | 100                    | 100/100                                 | 50                                      | 100/200           | 17  | 0.3                                                      | 5           | 65          |                                                |
|                        |               | RN 1Z       | 1.5                        | 60                                         | -40 to +150            | 0.92                     | 1.5                          | 20                    | 3                                                                 | 150 (T <sub>J</sub> )                                                 | 100                    | 100/100                                 | 50                                      | 100/200           | 15  | 0.4                                                      | 6           | 66          |                                                |
|                        |               | RL 10Z      | 2.0                        | 30                                         | -40 to +150            | 0.98                     | 2.0                          | 50                    | 0.1                                                               | 100                                                                   | 50                     | 100/100                                 | 35                                      | 100/200           | 15  | 0.4                                                      |             |             |                                                |
|                        |               | RL 2Z       | 2.0                        | 30                                         | -40 to +150            | 0.98                     | 2.0                          | 100                   | 0.5                                                               | 100                                                                   | 50                     | 100/100                                 | 35                                      | 100/200           | 12  | 0.6                                                      | 7           | 67          |                                                |
|                        |               | RN 2Z       | 2.0                        | 70                                         | -40 to +150            | 0.92                     | 2.0                          | 50                    | 4                                                                 | 150 (T <sub>J</sub> )                                                 | 100                    | 100/100                                 | 50                                      | 100/200           | 12  | 0.6                                                      |             |             |                                                |
|                        |               | RN 3Z       | 3.0                        | 80                                         | -40 to +150            | 0.92                     | 3.0                          | 50                    | 6                                                                 | 150 (T <sub>J</sub> )                                                 | 100                    | 100/100                                 | 50                                      | 100/200           | 10  | 1.0                                                      | 8           | 69          |                                                |
|                        |               | RX 3Z       | 3.0                        | 80                                         | -40 to +150            | 0.98                     | 3.0                          | 50                    | 10                                                                | 100                                                                   | 30                     | 100/100                                 | 25                                      | 100/200           | 10  | 1.0                                                      |             |             |                                                |
|                        |               | RG 4Z       | 1.0 (3.0)                  | 80                                         | -40 to +150            | 1.7                      | 3.0                          | 1000                  | 5                                                                 | 100                                                                   | 100                    | 100/100                                 | 35                                      | 100/200           | 8   | 1.2                                                      | 9           | 70          |                                                |
|                        |               | RL 3Z       | 3.5                        | 80                                         | -40 to +150            | 0.95                     | 3.5                          | 50                    | 0.2                                                               | 100                                                                   | 50                     | 100/100                                 | 35                                      | 100/200           | 10  | 1.0                                                      | 8           |             |                                                |
|                        |               | RL 4Z       | 3.5                        | 80                                         | -40 to +150            | 0.95                     | 3.5                          | 150                   | 0.5                                                               | 100                                                                   | 50                     | 100/100                                 | 50                                      | 100/200           | 8   | 1.2                                                      | 9           |             |                                                |
|                        |               | RN 4Z       | 3.5                        | 120                                        | -40 to +150            | 0.92                     | 3.5                          | 50                    | 6                                                                 | 150 (T <sub>J</sub> )                                                 | 100                    | 100/100                                 | 50                                      | 100/200           | 8   | 1.2                                                      |             |             |                                                |
|                        | Frame-2Pin    | FML-G12S    | 5.0                        | 65                                         | -40 to +150            | 0.98                     | 5.0                          | 250                   | 1                                                                 | 100                                                                   | 40                     | 100/100                                 | 30                                      | 100/200           | 4.0 | 2.1                                                      | 10          | 72          |                                                |
|                        |               | FMN-G12S    | 5.0                        | 100                                        | -40 to +150            | 0.92                     | 5.0                          | 100                   | 10                                                                | 100                                                                   | 100                    | 100/100                                 | 50                                      | 100/200           | 4.0 | 2.1                                                      |             |             |                                                |
|                        |               | FMP-G12S    | 5.0                        | 65                                         | -40 to +150            | 1.15                     | 5.0                          | 50                    | 0.5                                                               | 100                                                                   | 150                    | 100/100                                 | 70                                      | 100/200           | 4.0 | 2.1                                                      |             |             |                                                |
|                        |               | FMX-G12S    | 5.0                        | 65                                         | -40 to +150            | 0.98                     | 5.0                          | 100                   | 20                                                                | 100                                                                   | 30                     | 100/100                                 | 25                                      | 100/200           | 4.0 | 2.1                                                      |             |             |                                                |
|                        |               | FML-G22S    | 10.0                       | 150                                        | -40 to +150            | 0.98                     | 10.0                         | 500                   | 2                                                                 | 100                                                                   | 40                     | 500/500                                 | 30                                      | 500/1000          | 4.0 | 2.1                                                      |             |             |                                                |
|                        |               | FMX-G22S    | 10.0                       | 150                                        | -40 to +150            | 0.98                     | 10.0                         | 200                   | 50                                                                | 100                                                                   | 30                     | 500/500                                 | 25                                      | 500/1000          | 4.0 | 2.1                                                      |             |             |                                                |
|                        | Center-tap    | FMG-12S, R  | 5.0                        | 35                                         | -40 to +150            | 1.8                      | 2.5                          | 500                   | 1.5                                                               | 100                                                                   | 100                    | 100/100                                 | 50                                      | 100/200           | 4.0 | 2.1                                                      | 11          | 73          |                                                |
|                        |               | FML-12S     | 5.0                        | 35                                         | -40 to +150            | 0.98                     | 2.5                          | 150                   | 0.5                                                               | 100                                                                   | 40                     | 100/100                                 | 30                                      | 100/200           | 4.0 | 2.1                                                      |             | 74          |                                                |
|                        |               | FMX-12S     | 5.0                        | 35                                         | -40 to +150            | 0.98                     | 2.5                          | 50                    | 10                                                                | 100                                                                   | 30                     | 100/100                                 | 25                                      | 100/200           | 4.0 | 2.1                                                      |             | 76          |                                                |
|                        |               | FMG-22S, R  | 10.0                       | 65                                         | -40 to +150            | 1.8                      | 5.0                          | 500                   | 1.5                                                               | 100                                                                   | 100                    | 100/100                                 | 50                                      | 100/200           | 4.0 | 2.1                                                      |             | 74          |                                                |
|                        |               | FML-22S     | 10.0                       | 65                                         | -40 to +150            | 0.98                     | 5.0                          | 250                   | 1                                                                 | 100                                                                   | 40                     | 100/100                                 | 30                                      | 100/200           | 4.0 | 2.1                                                      | 12          | 75          |                                                |
|                        |               | FMX-22S     | 10.0                       | 65                                         | -40 to +150            | 0.98                     | 5.0                          | 100                   | 20                                                                | 100                                                                   | 30                     | 100/100                                 | 25                                      | 100/200           | 4.0 | 2.1                                                      |             | 76          |                                                |
|                        |               | FMX-22SL    | 15.0                       | 100                                        | -40 to +150            | 0.98                     | 7.5                          | 150                   | 30                                                                | 100                                                                   | 30                     | 500/500                                 | 25                                      | 500/1000          | 4.0 | 2.1                                                      |             |             |                                                |
|                        |               | FMG-32S, R  | 20.0                       | 150                                        | -40 to +150            | 1.8                      | 10.0                         | 1000                  | 5                                                                 | 100                                                                   | 100                    | 100/100                                 | 50                                      | 100/200           | 2.0 | 5.5                                                      |             |             | 77                                             |
|                        |               | FML-32S     | 20.0                       | 150                                        | -40 to +150            | 0.98                     | 10.0                         | 600                   | 2                                                                 | 100                                                                   | 40                     | 100/100                                 | 30                                      | 100/200           | 2.0 | 5.5                                                      |             |             |                                                |
|                        |               | FMX-32S     | 20.0                       | 150                                        | -40 to +150            | 0.98                     | 10.0                         | 200                   | 50                                                                | 100                                                                   | 30                     | 500/500                                 | 25                                      | 500/1000          | 2.0 | 5.5                                                      |             |             |                                                |
|                        | Bridge        | RBV-402L    | 4.0                        | 80                                         | -40 to +150            | 0.98                     | 2.0                          | 50                    | 0.1                                                               | 100                                                                   | 40                     | 100/100                                 | 30                                      | 100/200           | 5.0 | 4.05                                                     | 13          | 78          |                                                |
|                        |               | RBV-602L    | 6.0                        | 100                                        | -40 to +150            | 1.0                      | 3.0                          | 250                   | 1                                                                 | 100                                                                   | 50                     | 100/100                                 | 35                                      | 100/200           | 3.0 | 6.45                                                     | 14          |             |                                                |

# Ultra-Fast-Recovery Rectifier Diodes 200V

## External Dimensions

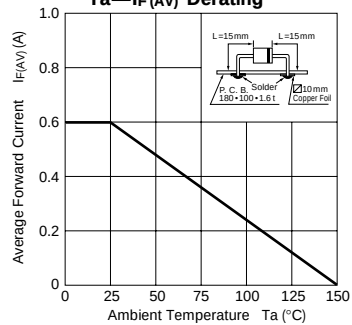
Flammability: UL94V-0 or Equivalent (Unit: mm)



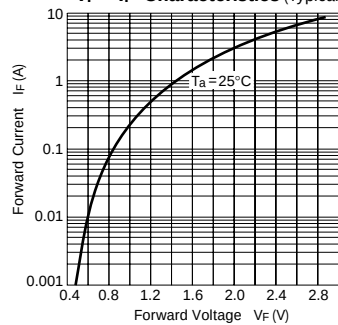
# Ultra-Fast-Recovery Rectifier Diodes

## EG 1A

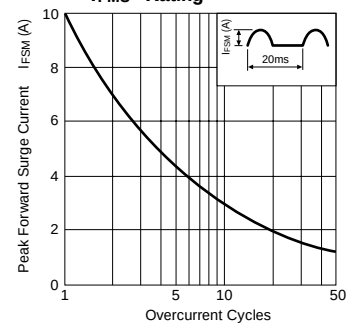
**Ta—If(AV) Derating**



**V<sub>F</sub>—I<sub>F</sub> Characteristics (Typical)**

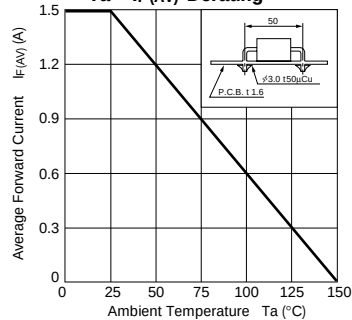


**I<sub>FMS</sub> Rating**

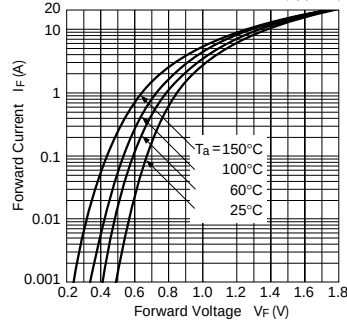


## EL 1Z

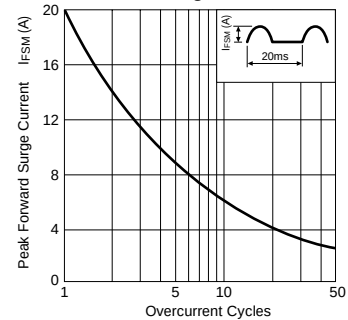
**Ta—If(AV) Derating**



**V<sub>F</sub>—I<sub>F</sub> Characteristics (Typical)**

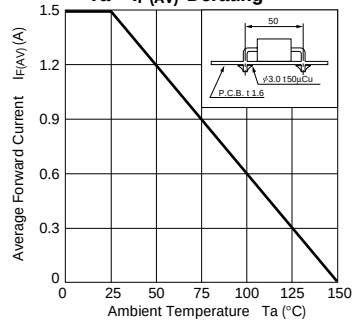


**I<sub>FMS</sub> Rating**

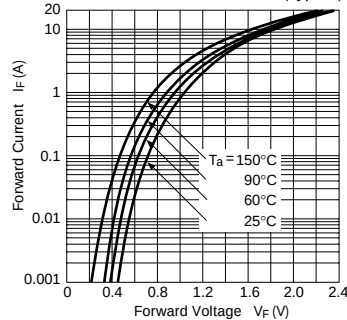


## EL 1

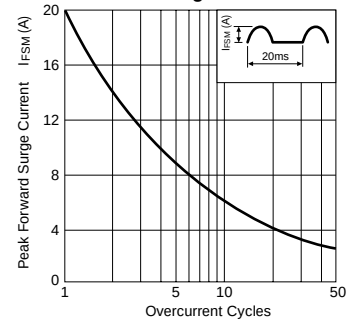
**Ta—If(AV) Derating**



**V<sub>F</sub>—I<sub>F</sub> Characteristics (Typical)**

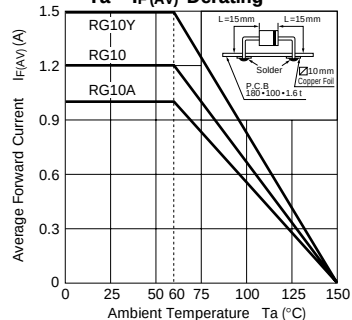


**I<sub>FMS</sub> Rating**

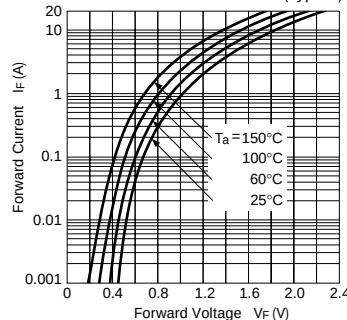


## RG10 series

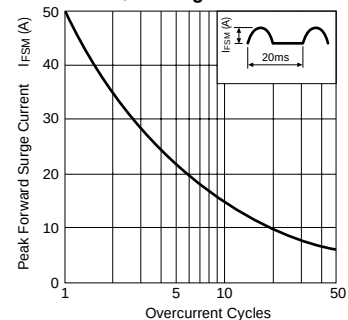
**Ta—If(AV) Derating**



**V<sub>F</sub>—I<sub>F</sub> Characteristics (Typical)**

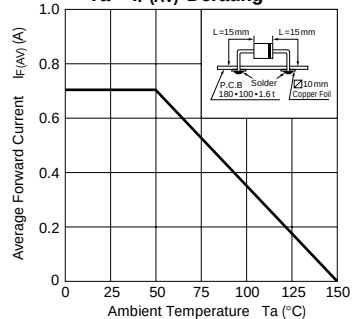


**I<sub>FMS</sub> Rating**

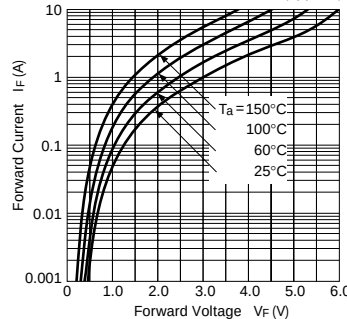


## RG 1C

**Ta—If(AV) Derating**



**V<sub>F</sub>—I<sub>F</sub> Characteristics (Typical)**



**I<sub>FMS</sub> Rating**

