

| THERMAL PERFORMANCE                    |                  |       |      |  |  |
|--|------------------|-------|------|--|--|
| PARAMETER                              | SYMBOL           | LIMIT | UNIT |  |  |
| Junction-to-Ambient Thermal Resistance | $R_{\Theta JA}$  | 55    | °C/W |  |  |
| Junction-to-lead thermal resistance    | R <sub>eJL</sub> | 18    | °C/W |  |  |

| PARAMETER   |      | CONDITIONS   | SYMBOL          | TYP | MAX | UNIT |
|---|------|--|-----------------|-----|-----|------|
| Forward voltage per diode (1)                                   |      | $I_F = 2A, T_J = 25^{\circ}C$  | V <sub>F</sub>  | -   | 1.3 | V    |
| Reverse current @ rated V <sub>R</sub> per diode <sup>(2)</sup> |      | T <sub>J</sub> = 25°C  | I <sub>R</sub>  | -   | 5   | μA   |
|   |      | T <sub>J</sub> = 125°C   |                 | -   | 50  | μA   |
| Junction capacitance  |      | 1 MHz, V <sub>R</sub> =4.0V  | CJ              | 50  | -   | pF   |
| Reverse recovery time   | RS2A | I <sub>F</sub> =0.5A ,I <sub>R</sub> =1.0A<br>I <sub>RR</sub> =0.25A | t <sub>rr</sub> | -   | 150 | ns   |
|   | RS2B |  |                 |     |     | ns   |
|   | RS2D |  |                 |     |     | ns   |
|   | RS2G |  |                 |     |     | ns   |
|   | RS2J |  |                 | -   | 250 | ns   |
|   | RS2K |  |                 | -   | 500 | ns   |
|   | RS2M |  |                 |     |     | ns   |

## Notes:

- 1. Pulse test with PW=0.3 ms
- 2. Pulse test with PW=30 ms

| ORDERING INFORMATION |                    |                 |                           |         |                          |
|----------------------|--------------------|-----------------|---------------------------|---------|--------------------------|
| PART NO.             | PART NO.<br>SUFFIX | PACKING<br>CODE | PACKING CODE<br>SUFFIX(*) | PACKAGE | PACKING                  |
| RS2x<br>(Note 1)     | Н                  | R5              | G                         | SMB     | 850 / 7" Plastic reel    |
|                      |                    | R4              |                           | SMB     | 3,000 / 13" Paper reel   |
|                      |                    | M4              |                           | SMB     | 3,000 / 13" Plastic reel |

#### Note:

- 1. "x" defines voltage from 50V (RS2A) to 1000V (RS2M)
- \*: Optional available

| EXAMPLE P/N |          |                    |                 |                        |                                   |
|-------------|----------|--------------------|-----------------|------------------------|-----------------------------------|
| EXAMPLE P/N | PART NO. | PART NO.<br>SUFFIX | PACKING<br>CODE | PACKING CODE<br>SUFFIX | DESCRIPTION                       |
| RS2JHR5G    | RS2J     | Н                  | R5              | G                      | AEC-Q101 qualified Green compound |



#### **CHARACTERISTICS CURVES**

 $(T_A = 25^{\circ}C \text{ unless otherwise noted})$ 

Fig1. Forward Current Derating Curve

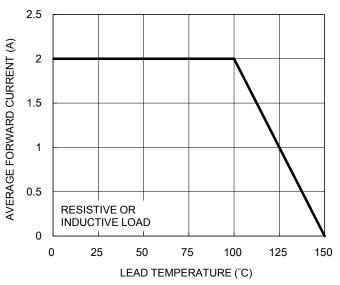


Fig2. Typical Junction Capacitance

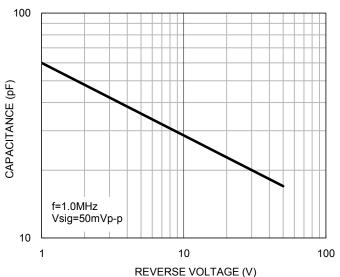


Fig3. Typical Reverse Characteristics

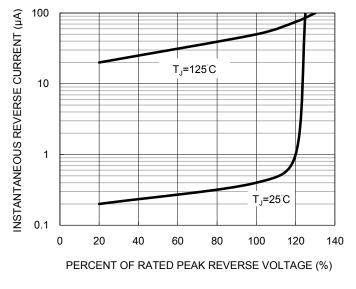
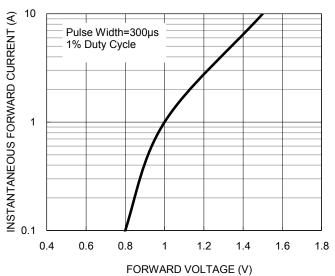


Fig4. Typical Forward Characteristics



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Fig5. Maximum Non-repetitive Forward Surge Current

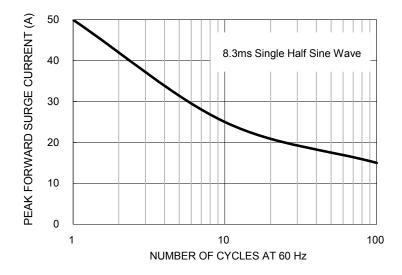
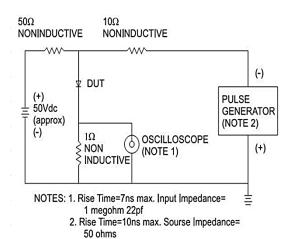
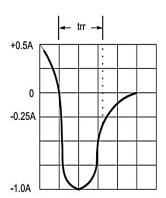


Fig6. Reverse Recovery Time Characteristic And Test Circuit Diagram

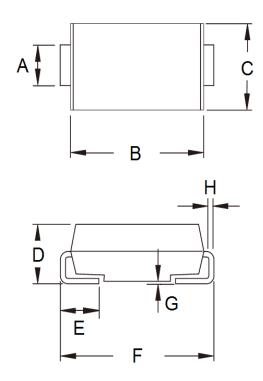






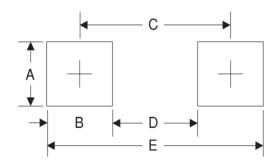
## **PACKAGE OUTLINE DIMENSIONS**

DO-214AA (SMB)



| DIM.   | Unit | (mm) | Unit (inch) |       |
|--------|------|------|-------------|-------|
| DIIVI. | Min  | Max  | Min         | Max   |
| Α      | 1.95 | 2.20 | 0.077       | 0.087 |
| В      | 4.05 | 4.60 | 0.159       | 0.181 |
| С      | 3.30 | 3.95 | 0.130       | 0.156 |
| D      | 1.95 | 2.65 | 0.077       | 0.104 |
| Е      | 0.75 | 1.60 | 0.030       | 0.063 |
| F      | 5.10 | 5.60 | 0.201       | 0.220 |
| G      | 0.05 | 0.20 | 0.002       | 0.008 |
| Н      | 0.15 | 0.31 | 0.006       | 0.012 |

## **SUGGESTED PAD LAYOUT**



| Symbol | Unit (mm) | Unit (inch) |
|--------|-----------|-------------|
| A      | 2.3       | 0.091       |
| В      | 2.5       | 0.098       |
| С      | 4.3       | 0.169       |
| D      | 1.8       | 0.071       |
| Е      | 6.8       | 0.268       |

#### **MARKING DIAGRAM**



P/N = Marking Code G = Green Compound YW = Date Code F = Factory Code

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