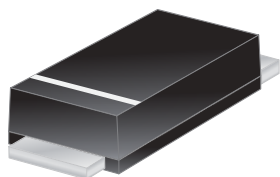




# EBRP5L300AF



## Excellent Schottky Barrier Rectifiers



DO-221AC(SMAF)

| Primary Characteristics |      |    |
|-------------------------|------|----|
| $I_F$                   | 5    | A  |
| $V_{RRM}$               | 300  | V  |
| $I_{FSM}$               | 100  | A  |
| $V_F$                   | 0.92 | V  |
| $T_J \text{ max}$       | 150  | °C |

| Features                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• High current capability</li><li>• High surge current capability</li><li>• Low reverse current</li><li>• Component in accordance to RoHS 2002/95/EC</li></ul> |

| Mechanical Data                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Case: DO-221AC(SMAF)</li><li>• Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0</li><li>• Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208</li><li>• Polarity: Cathode Band</li><li>• Weight: 0.035 grams (approximate)</li></ul> |

| Ordering Information |                    |         |                     |
|----------------------|--------------------|---------|---------------------|
| Part No.             | Remark             | Package | Packing             |
| EBRP5L300AF          | General            | SMAF    | 10000 / Tape & Reel |
| EBRP5L300AF-H        | Halogen Free       |         |                     |
| EBRP5L300AF-Q        | AEC-Q101 qualified |         |                     |

| Maximum Ratings (TA=25°C unless otherwise noted)                                   |                 |                        |      |
|------------------------------------------------------------------------------------|-----------------|------------------------|------|
| PARAMETER                                                                          | SYMBOL          | EBRP5L300AF            | UNIT |
| Maximum repetitive peak reverse voltage                                            | $V_{RRM}$       | 300                    | V    |
| Maximum RMS voltage                                                                | $V_{RMS}$       | 210                    | V    |
| Maximum DC blocking voltage                                                        | $V_{DC}$        | 300                    | V    |
| Maximum average forward rectified current                                          | $I_F$           | 5                      | A    |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | $I_{FSM}$       | 100                    | A    |
| Maximum Instantaneous Forward Voltage<br>IF=2A @ 25°C<br>IF=5A @ 25°C              | $V_F$           | 0.77 Typ.<br>0.92 Max. | V    |
| Maximum DC Reverse Current @ TA=25°C<br>at Rated DC Blocking Voltage @ TA=100°C    | $I_R$           | 0.2<br>5               | mA   |
| Typical Junction Capacitance(NOTE1)                                                | $C_j$           | 60                     | pF   |
| Typical Thermal Resistance                                                         | $R_{\theta JC}$ | 40                     | °C/W |
| Operating Temperature Range                                                        | $T_J$           | -55 to +150            | °C   |
| Storage Temperature Range                                                          | $T_{STG}$       | -55 to +150            | °C   |
| Marking Code                                                                       |                 | P5L300AF、5L300AF       |      |

NOTES:

1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC



EBRP5L300AF



## Excellent Schottky Barrier Rectifiers

### Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

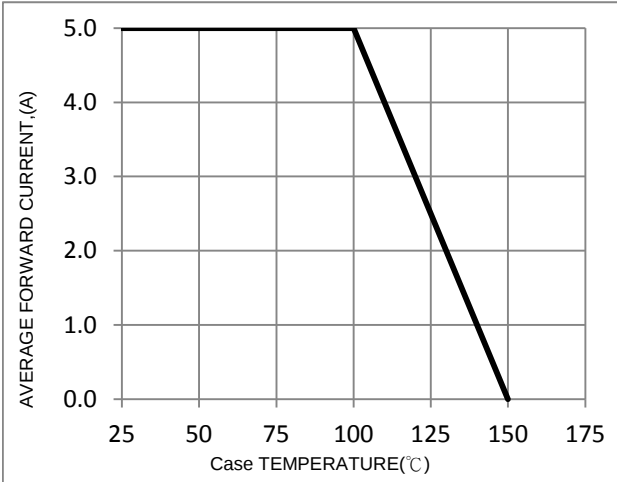


FIG. 2-Typical Forward Characteristics

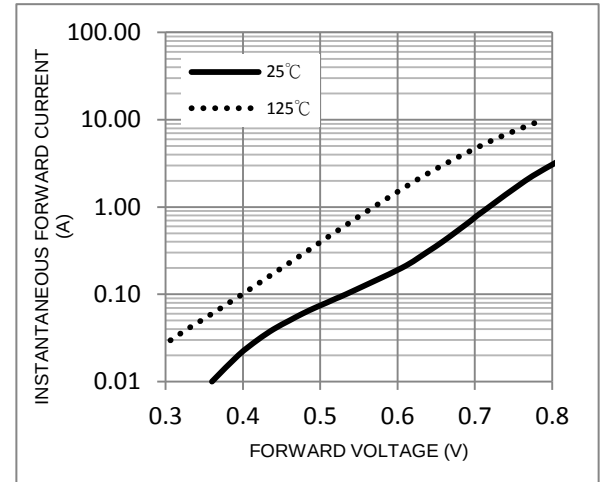


FIG. 3-Maximum Non-Repetitive Forward Surge Current

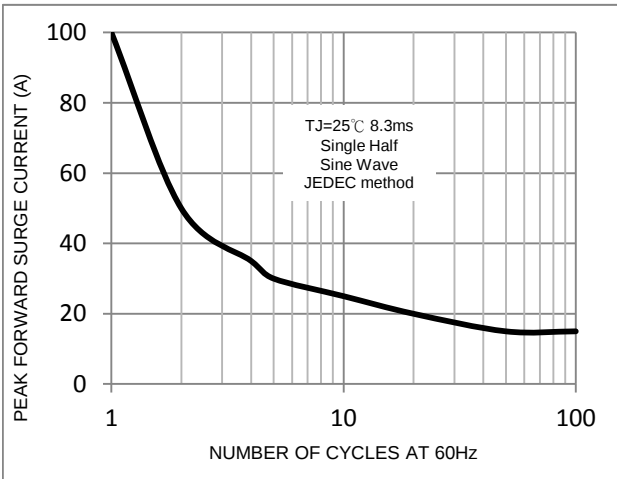


FIG. 4-Typical Reverse Characteristics

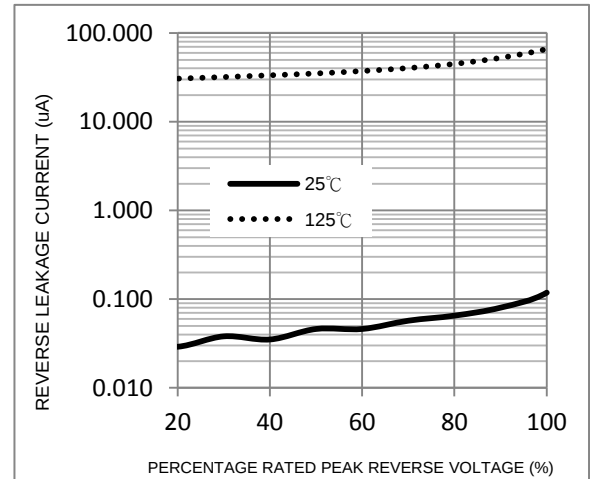
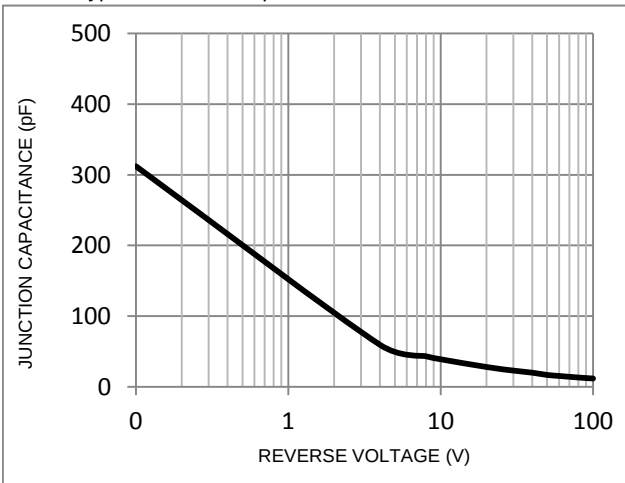


FIG. 5-Typical Junction Capacitance



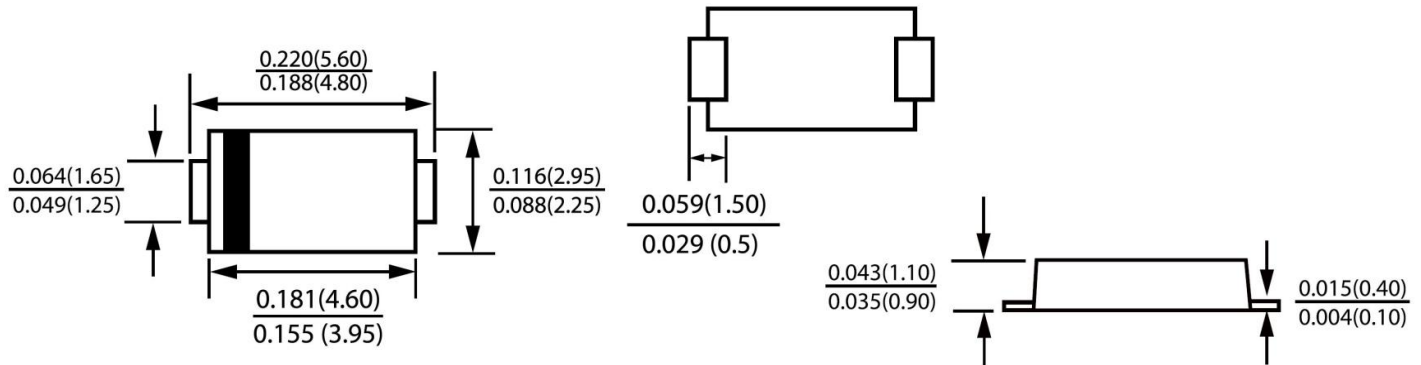


**EBRP5L300AF**



## Excellen Schottky Barrier Rectifiers

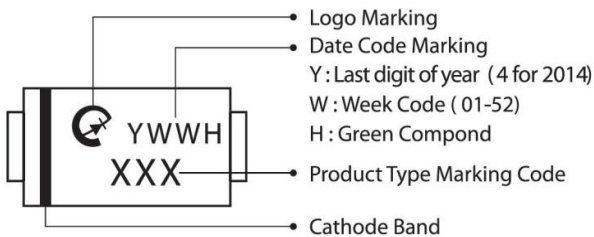
### Package Outline Dimensions



### DO-221AC(SMAF)

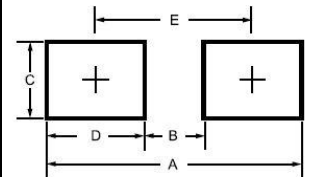
Dimensions in inches and (millimeters)

### Marking Information



### Suggested Pad Layout

| Outline<br>Dimension | SMAF<br>(DO-221AC) |
|----------------------|--------------------|
| A                    | 6.50               |
| B                    | 1.50               |
| C                    | 1.70               |
| D                    | 2.50               |
| E                    | 4.00               |



### Tape & Reel Specification

| ITEM                   | SYMBOL | SMAF(mm)<br>DO-221AC |
|------------------------|--------|----------------------|
| Carrier width          | A      | 3±0.1                |
| Carrier length         | B      | 5.6±0.1              |
| Carrier depth          | C      | 1.2±0.1              |
| Sprocket hole          | d      | 1.50±0.1             |
| Reel outside diameter  | D      | 330±2.0              |
| Feed hole diameter     | D0     | 13.5±1               |
| Reel inner diameter    | D1     | 50 (min.)            |
| Sprocket hole position | E      | 1.75±0.1             |
| Punch hole position    | F      | 5.5±0.05             |
| Sprocket hole pitch    | P      | 4.0±0.1              |
| Sprocket hole pitch    | P0     | 4.0±0.05             |
| Embossment center      | P1     | 2.0±0.05             |
| Overall tape thickness | T      | 0.25±0.05            |
| Tape width             | W      | 12.0±0.2             |
| Reel width             | W2     | 18.4 (max)           |
| Reel width             | W1     | 14.4 (max)           |

