



P10L60B



Excellent Schottky Barrier Rectifiers



DO-214AA(SMB)

| Features |
|---|
| <ul style="list-style-type: none"> • High current capability • High surge current capability • Low reverse current • Component in accordance to RoHS 2002/95/EC • AEC-Q101 qualified |

| Ordering Information | | |
|----------------------|---------|--------------------|
| Part No. | Package | Packing |
| P10L60B | SMB | 3000 / Tape & Reel |

| Device P/N | |
|-------------|--------------|
| Part Number | Remark |
| P10L60B | General |
| P10L60B-H | Halogen Free |
| P10L60B-Q | Automotive |

| Primary Characteristics | | |
|-------------------------|------|----|
| I_F | 10 | A |
| V_{RRM} | 60 | V |
| I_{FSM} | 150 | A |
| V_F | 0.63 | V |
| $T_J \text{ max}$ | 150 | °C |

| Mechanical Data |
|---|
| • Case: DO-214AA(SMB) |
| • Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 |
| • Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208 |
| • Polarity: Cathode Band |
| • Weight: 0.092 grams (approximate) |

| Maximum Ratings (TA=25°C unless otherwise noted) | | | |
|--|------------------------------------|----------------------|------|
| PARAMETER | SYMBOL | P10L60B | UNIT |
| Maximum repetitive peak reverse voltage | V_{RRM} | 60 | V |
| Maximum RMS voltage | V_{RMS} | 42 | V |
| Maximum DC blocking voltage | V_{DC} | 60 | V |
| Maximum average forward rectified current | I_F | 10 | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 150 | A |
| Maximum Instantaneous Forward Voltage IF=10A @ 25°C | V_F | 0.58 Typ 0.63 Max | V |
| Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C | I_R | 0.5 10 | mA |
| Typical Junction Capacitance(NOTE1) | C_j | 280 | pF |
| Typical Thermal Resistance | $R_{\theta JA}$ $R_{\theta JC}$ | 75 30 | °C/W |
| Operating Temperature Range | T_J | -55 to +150 | °C |
| Storage Temperature Range | T_{STG} | -55 to +150 | °C |
| Marking Code | | P10L60B | |

NOTES:

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

Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

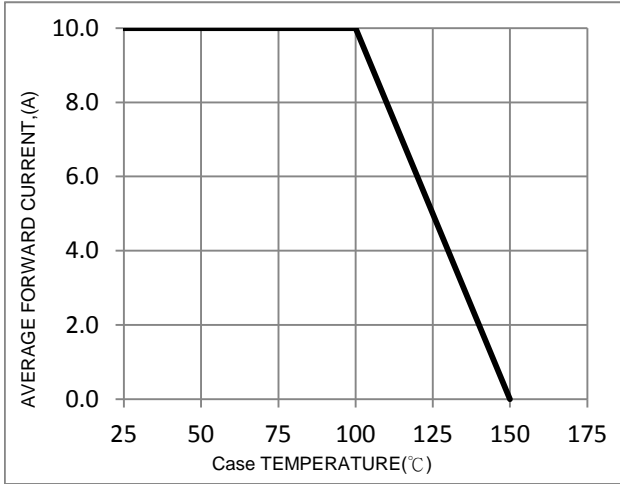


FIG. 2-Typical Forward Characteristics

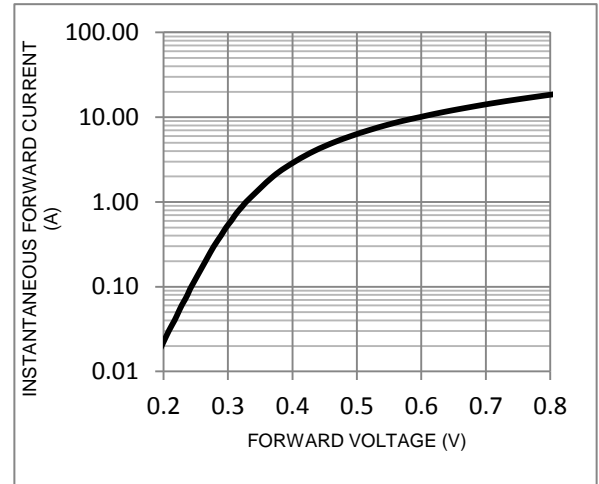


FIG. 3-Maximum Non-Repetitive Forward Surge Current

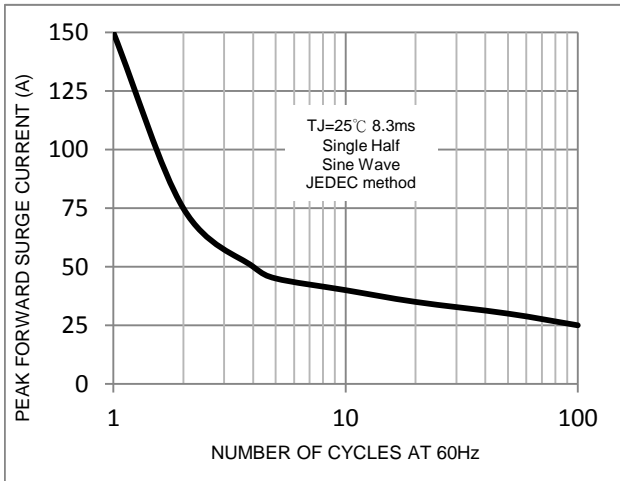


FIG. 4-Typical Reverse Characteristics

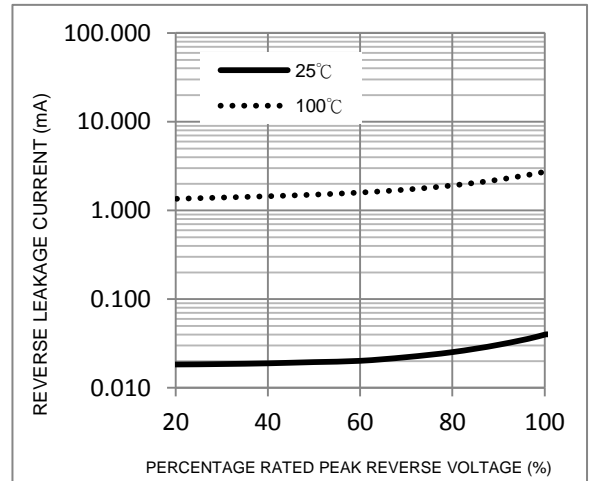
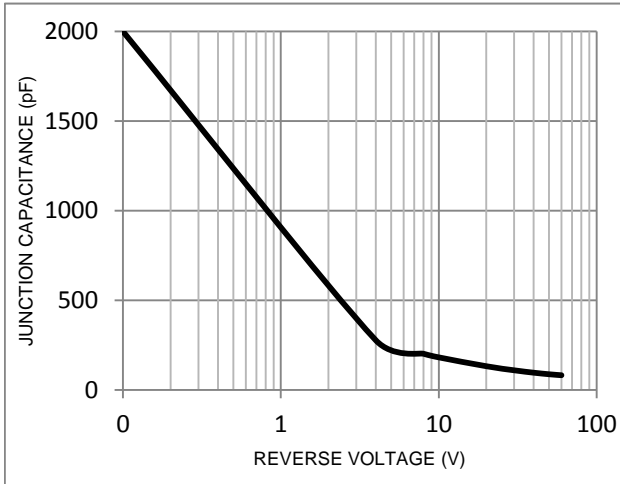
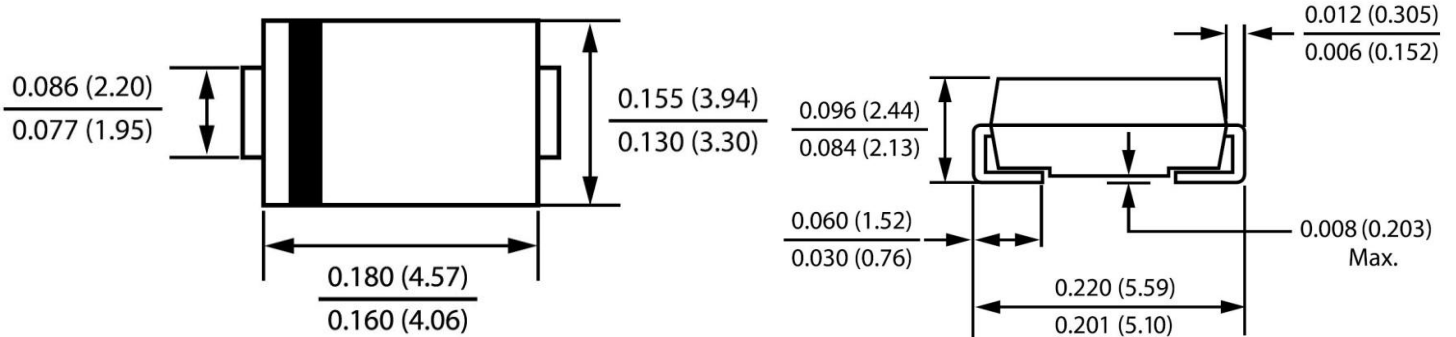


FIG. 5-Typical Junction Capacitance



Excellent Schottky Barrier Rectifiers

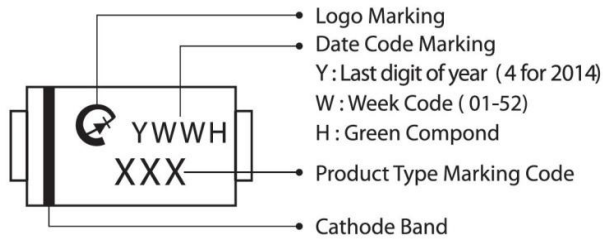
Package Outline Dimensions



DO-214AA(SMB)

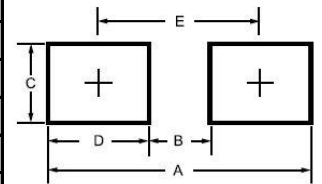
Dimensions in inches and (millimeters)

Marking Information



Suggested Pad Layout

| Dimension | Outline | SMB (DO-214AA) |
|-----------|---------|----------------|
| A | | 6.80 |
| B | | 1.80 |
| C | | 2.30 |
| D | | 2.50 |
| E | | 4.30 |



Tape & Reel Specification

| ITEM | SYMBOL | SMB(mm) DO-214AA |
|------------------------|--------|---------------------|
| Carrier width | A | 4.0(max) |
| Carrier length | B | 5.9(max) |
| Carrier depth | C | 3.0(max) |
| 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 | 8.0±0.1 |
| Sprocket hole pitch | Po | 4.0±0.1 |
| Embossment center | P1 | 2.0±0.05 |
| Overall tape thickness | T | 0.6 (max) |
| Tape width | W | 12.0±0.3 |
| Reel width | W2 | 18.4 (max) |
| Reel width | W1 | 14.4 (max) |

