



P20M300CT



Excellent Schottky Barrier Rectifiers



TO-220AB

| Primary Characteristics | | |
|-------------------------|------|----|
| I_F | 20 | A |
| V_{RRM} | 300 | V |
| I_{FSM} | 120 | A |
| V_F | 0.98 | V |
| $T_J \text{ max}$ | 150 | °C |

| Features |
|---|
| <ul style="list-style-type: none"> • Low Forward Voltage Drop • Excellent High Temperature Stability • Excellent Barrier Rectifier Technology • Soft, Fast Switching Capability |

| Mechanical Data |
|--|
| • Case: TO-220AB |
| • Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0 |
| • Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208 |
| • Weight: 2.015 grams (approximate) |

| Ordering Information | | | |
|----------------------|--------------|----------|------------------------|
| Part No. | Remark | Package | Packing |
| P20M300CT | General | TO-220AB | 50 & 2000 / Tube & Box |
| P20M300CT-H | Halogen Free | | |

| Maximum Ratings (TA=25°C unless otherwise noted) | | | |
|--|-----------------|------------------------|------|
| PARAMETER | SYMBOL | P20M300CT | 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 (Total) (Per Leg) | I_F | 20 10 | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 120 | A |
| Maximum Instantaneous Forward Voltage $I_F=5A @ 25^\circ C$ $I_F=10A @ 25^\circ C$ | V_F | 0.80 Typ. 0.98 Max. | V |
| Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=125°C | I_R | 0.2 5 | mA |
| Typical Junction Capacitance(NOTE1) | C_j | 90 | pF |
| Typical Thermal Resistance | $R_{\theta JC}$ | 3 | °C/W |
| Operating Temperature Range | T_J | -55 to +150 | °C |
| Storage Temperature Range | T_{STG} | -55 to +175 | °C |
| Marking Code | | P20M300CT · 20M300CT | |

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

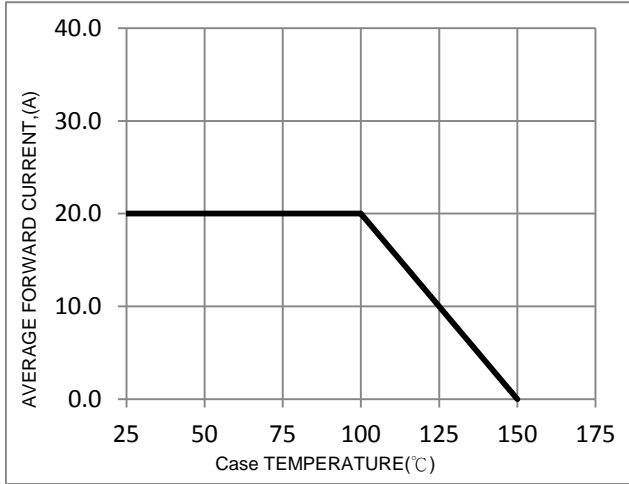


FIG. 2-Typical Forward Characteristics

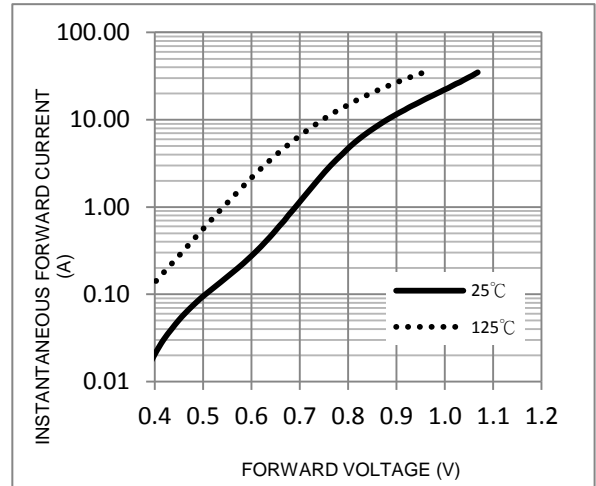


FIG. 3-Maximum Non-Repetitive Forward Surge Current

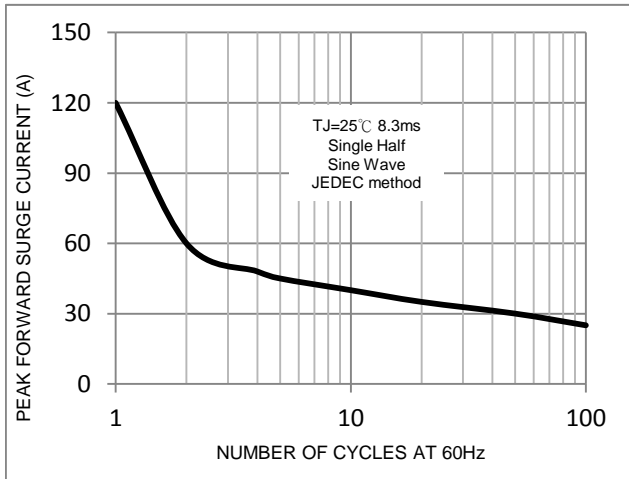


FIG. 4-Typical Reverse Characteristics

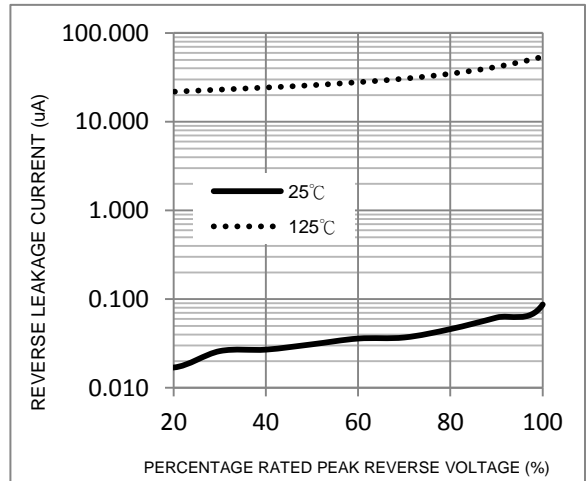
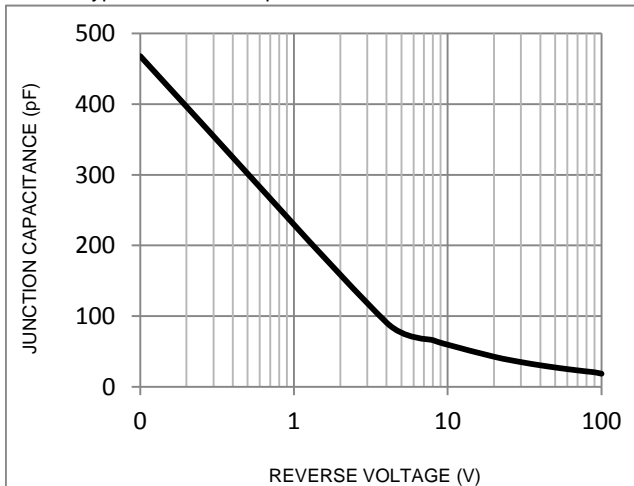
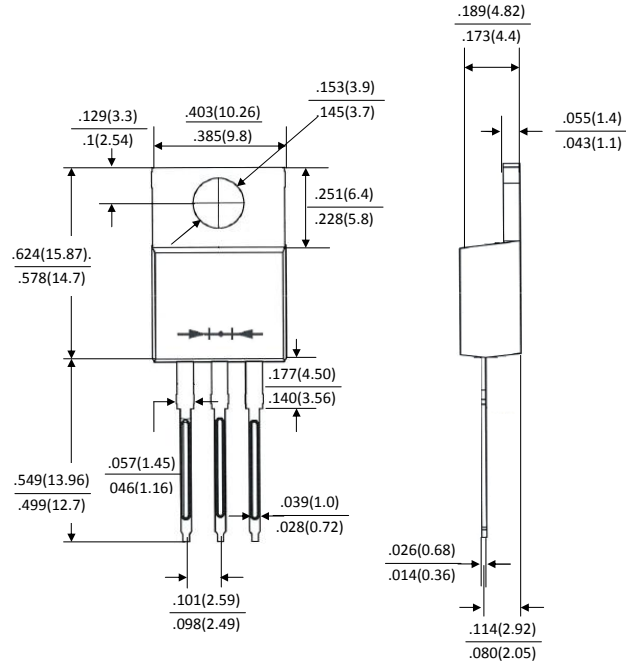


FIG. 5-Typical Junction Capacitance



Package Outline Dimensions



TO-220AB

Dimensions in inches and (millimeters)

Marking Information

