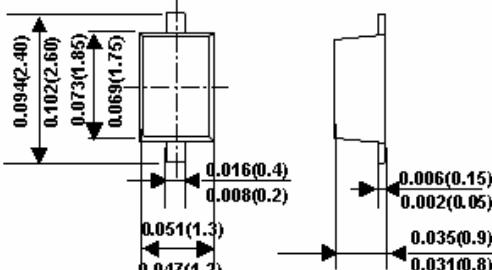




B0520WS THRU B0530WS

0.5A Surface Mount Schottky Barrier Rectifier

| | |
|--|--|
| | Voltage Range 20 to 30 Volts 235m Watts Power Dissipation |
| Features | SOD-323F |
| <ul style="list-style-type: none"> ◊ Low forward voltage drop ◊ Guard ring construction for transient protection ◊ High conductance ◊ Available in lead free version |  <p>Dimensions in inches and (millimeters)</p> |

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

| Type Number | Symbol | B0520WS | B0530WS | Units |
|---|-----------------------------------|---------|--------------|-------|
| Peak Repetitive Reverse Voltage | VR _{RM} | | | |
| Working Peak Reverse Voltage | VR _{WM} | 20 | 30 | V |
| DC Blocking Voltage | VR | | | |
| RMS Reverse Voltage | VR(RMS) | 14 | 21 | V |
| Average Rectified Current @ T _L =100 °C | I _o | | 0.5 | A |
| Non-repetitive Peak Forward Surge Current 8.3ms Single half Sine-Wave Superimposed on Rated Load (JEDEC Method) | I _{FSM} | | 2 | A |
| Power Dissipation (Note 1) | P _d | | 235 | mW |
| Thermal Resistance Junction to Ambient Air (Note 1) | R _{θ JA} | | 426 | °C /W |
| Operating and Storage Temperature Range | T _J , T _{STG} | | -40 to + 125 | °C |

Electrical Characteristics

| Type Number | Symbol | Min | Typ | Max | Units |
|--|----------------|-----|------|------------------|-------|
| Reverse Breakdown Voltage (Note 2) IR=500uA | V(BR)R | 30 | | | V |
| Leakage Current (Note 2) VR=15V VR=20V VR=30V | I _R | | | 80 100 500 | uA |
| Forward Voltage Drop (Note 2) IF=0.1A IF=0.5A | V _F | | 0.40 | 0.36 0.45 | V |
| Junction Capacitance VR=0, f=1MHz | C _j | | 58 | | pF |

Notes: 1. Valid Provided that Leads are Kept at Ambient Temperature.

2. Short duration test pulse used to minimize self-heating effect..



RATINGS AND CHARACTERISTIC CURVES (B0520WS THRU B0530WS)

FIG.1- FORWARD CURRENT DERATING CURVE

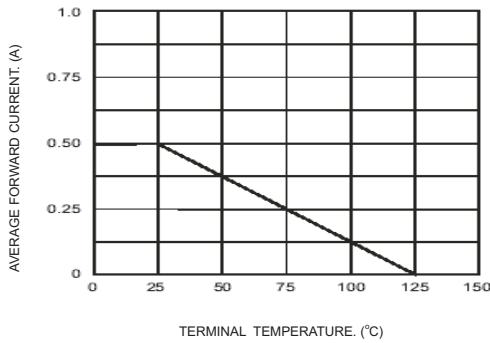


FIG.3- TYPICAL TOTAL CAPACITANCE VS REVERSE VOLTAGE

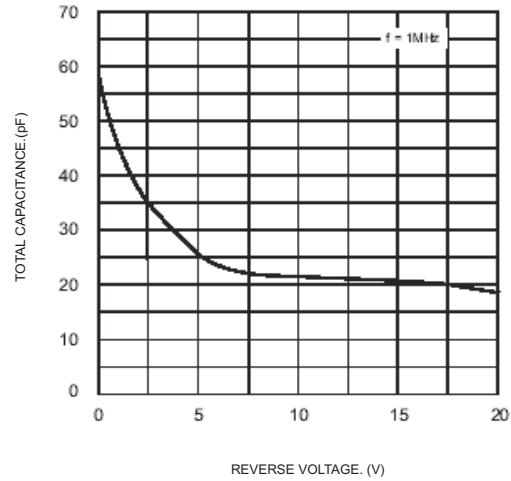


FIG.2- TYPICAL FORWARD CHARACTERISTICS

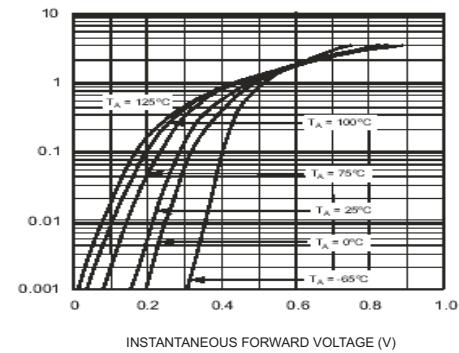


FIG.4- TYPICAL REVERSE CHARACTERISTICS

