

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts

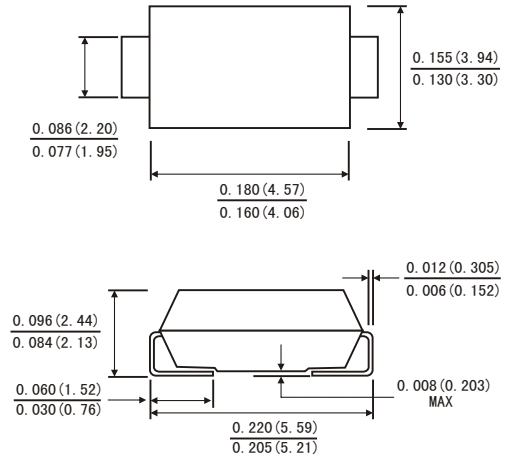
Forward Current - 3.0Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Built-in strain relief
- Low profile package
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- **Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC**



SMB(DO-214AA)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003ounce,0.093 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

| | Symbols | SS 5820 | SS 5821 | SS 5822 | Units |
|--|---------------------------------|-------------|---------|---------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | Volts |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | Volts |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | Volts |
| Maximum average forward rectified current at T _L =75°C | I(AV) | 3.0 | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at T _L =75°C | I _{FSM} | 80.0 | | | Amps |
| Maximum instantaneous forward voltage at 3.0 A(note 1) | V _F | 0.475 | 0.500 | 0.525 | Volts |
| Maximum instantaneous forward voltage at 9.4 A(note 1) | V _F | 0.850 | 0.900 | 0.950 | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) | I _R | 1.5 | | | mA |
| | | 20.0 | | | |
| Typical thermal resistance(Note 2) | R _{θ JA} | 55.0 | | | °C/W |
| | R _{θ JL} | 17.0 | | | |
| Operating junction and storage temperature range | T _J T _{STG} | -65 to +125 | | | °C |

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.P.C.B. mounted 0.55 X 0.55"(14 X 14mm)copper pad areas

RATINGS AND CHARACTERISTIC CURVES SS5820 THRU SS5822

FIG.1-FORWARD CURRENT DERATING CURVE

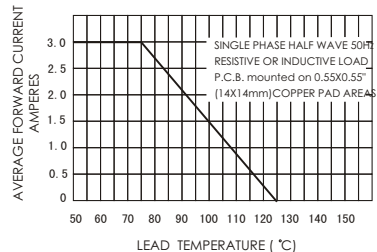


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

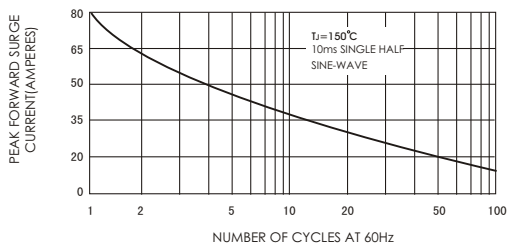


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

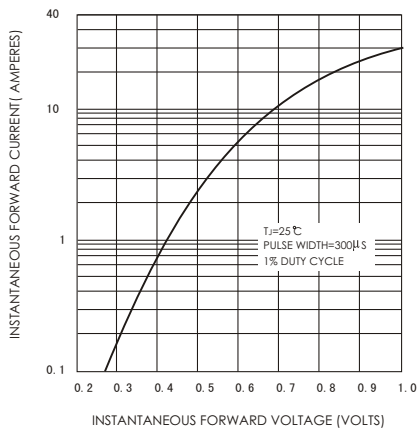


FIG.4-TYPICAL REVERSE CHARACTERISTICS

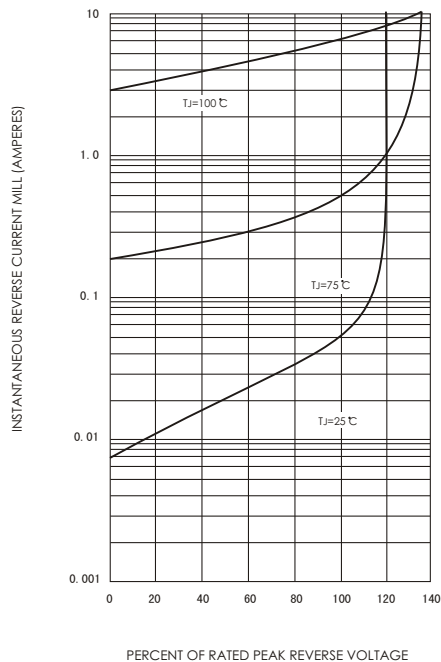


FIG.5-TYPICAL JUNCTION CAPACITANCE

