


FEATURES

- Glass passivated junction
- For Surface Mount Applications, Easy to pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering guaranteed: 260°C/10 seconds at terminals,
- Component in accordance to RoHS 2015/863/EU



SMB(DO-214AA)



Cathode  Anode

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

TYPICAL APPLICATIONS

For use in low voltage ,high frequency inverters ,DC/DC converters, free wheeling ,and polarity protection applications

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,60HZ, resistive or inductive load. For capacitive load, derate current by 20%.)

| Parameters | Symbols | RS3AB | RS3BB | RS3DB | RS3GB | RS3JB | RS3KB | RS3MB | Units |
|--|--------------------|-------------|-------|-------|-------|-------|-------|-------|---------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current | I_{FAV} | 3.0 | | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 100 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 3.0A | V_F | 1.3 | | | | | | | V |
| Maximum DC Reverse Current at rated DC blocking voltage | $T_A=25^{\circ}C$ | 5.0 | | | | | | | μA |
| | $T_A=125^{\circ}C$ | 100 | | | | | | | |
| Maximum reverse recovery time(Note1) | t_{rr} | 150 | | | 250 | | 500 | | ns |
| Typical junction capacitance(Note2) | C_j | 40.0 | | | | | | | pF |
| Typical Thermal Resistance(Note3) | $R_{\theta JA}$ | 75 | | | | | | | $^{\circ}C/W$ |
| | $R_{\theta JL}$ | 20 | | | | | | | |
| Operating junction and storage temperature range | T_j, T_{STG} | -55 to +150 | | | | | | | $^{\circ}C$ |

Note: 1. Test conditions: $I_f=0.5A, I_r=1.0A, I_{RRM}=0.25A$.

2. Measured at 1MHz and applied reverse voltage of 4.0 Volts.

3. Units mounted on PCB 5.0 mm x 5.0 mm (0.013 mm thick) land areas

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

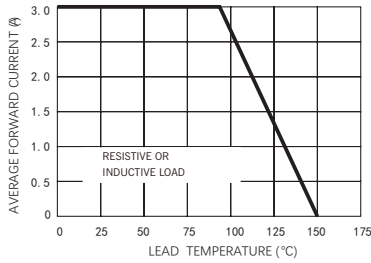


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

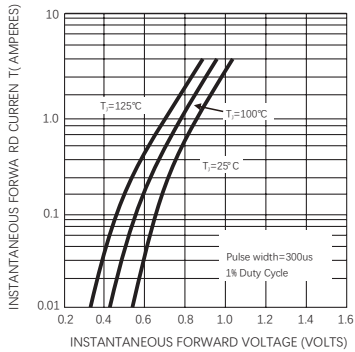


FIG.5-TYPICAL JUNCTION CAPACITANCE

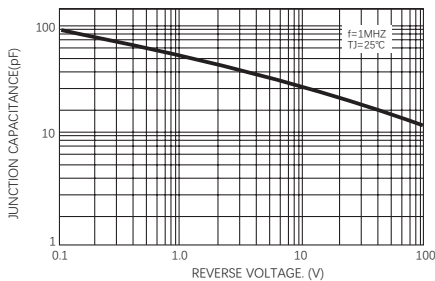


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG.4-TYPICAL REVERSE CHARACTERISTICS

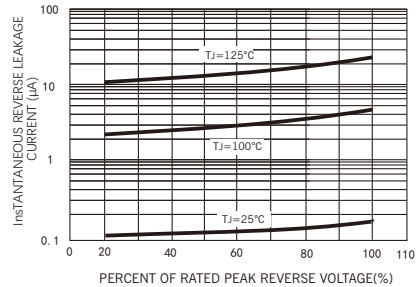
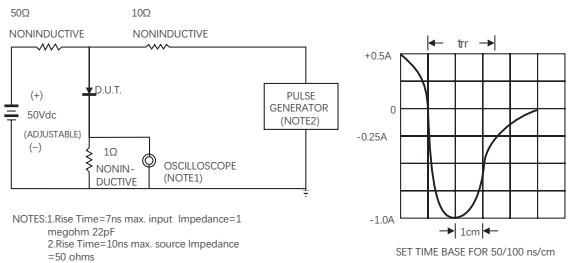


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

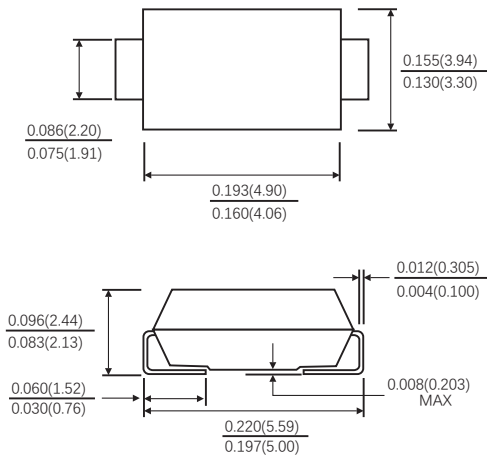


AVAILABLE PACK INFORMATION

| Product code | Pack | Reel Size (mm) | Quantity (pcs/reel) | Box Size L×W×H (mm) | Quantity (reel/box) | Carton Size L×W×H (mm) | Quantity (box/carton) | Quantity (carton) (K) |
|-------------------|------|----------------|---------------------|---------------------|---------------------|------------------------|-----------------------|-----------------------|
| RS3AB...RS3MB-SMB | T/R | Φ330 | 3000 | 330×333×35 | 2 | 370×370×360 | 8 | 48 |

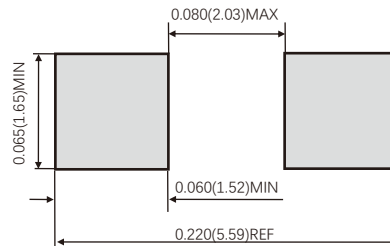
PACKAGE OUTLINE DIMENSIONS

SMB(DO-214AA)



Dimensions in inches and (millimeters)

Suggested PAD Layout



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