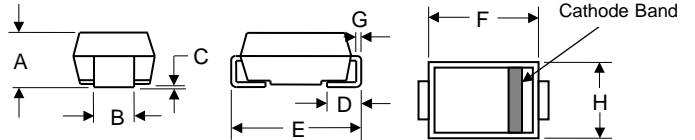


Features

- * Glass passivated chip junction
- * Ideal for automated placement
- * Low forward voltage drop
- * High current capability
- * High surge current capability



RoHS
COMPLIANT



| DO-214AB (SMC) | | | | |
|----------------|--------|-------|-------|-------|
| DIM | INCHES | | MM | |
| | MIN | MAX | MIN | MAX |
| A | 0.081 | 0.103 | 2.06 | 2.62 |
| B | 0.114 | 0.126 | 2.90 | 3.20 |
| C | --- | 0.008 | --- | 0.20 |
| D | 0.030 | 0.060 | 0.76 | 1.52 |
| E | 0.305 | 0.320 | 7.75 | 8.13 |
| F | 0.260 | 0.280 | 6.60 | 7.11 |
| G | 0.006 | 0.012 | 0.152 | 0.305 |
| H | 0.220 | 0.245 | 5.59 | 6.22 |

Mechanical Data

- * Case: DO-214AB (SMC)
- * Molding compound, UL flammability classification rating 94V-0
- * Moisture sensitivity level: level 1, per J-STD-020
- * Terminal: Matte tin plated leads, solderable per JESD22-B102
Meet JESD 201 class 2 whisker test
- * Polarity: Indicated by cathode band
- * Weight: 0.21 g (approximately)

Maximum Ratings And Electrical Characteristics (T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | S5A | S5B | S5D | S5G | S5J | S5K | S5M | UNIT |
|---|------------------|-----|-----|-----|-----|-----|-----|------|------|
| 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 Ratings And Electrical Characteristics (T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | S5A | S5B | S5D | S5G | S5J | S5K | S5M | UNIT |
|---|--------------------|--------------|-----|-----|-----|-----|-----|-----|------|
| Maximum average forward rectified current | I _{F(AV)} | 5 | | | | | | | A |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 100 | | | | | | | A |
| Maximum instantaneous forward voltage (Note 1) I _F = 5 A | V _F | 1.1 | | | | | | | V |
| Maximum reverse current @ rated V _R T _J =25°C | I _R | 5 | | | | | | | μA |
| T _J =125°C | | 250 | | | | | | | |
| Typical reverse recovery time (Note 2) | t _{rr} | 1.5 | | | | | | | μs |
| Typical junction capacitance (Note 3) | C _J | 60 | | | | | | | pF |
| Typical thermal resistance | R _{θJL} | 13 | | | | | | | °C/W |
| | R _{θJA} | 47 | | | | | | | |
| Operating junction temperature range | T _J | - 55 to +150 | | | | | | | °C |
| Storage temperature range | T _{STG} | - 55 to +150 | | | | | | | °C |

Note 1: Pulse test with PW=300μs, 1% duty cycle

Note 2: Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Ratings and Characteristic Curves

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

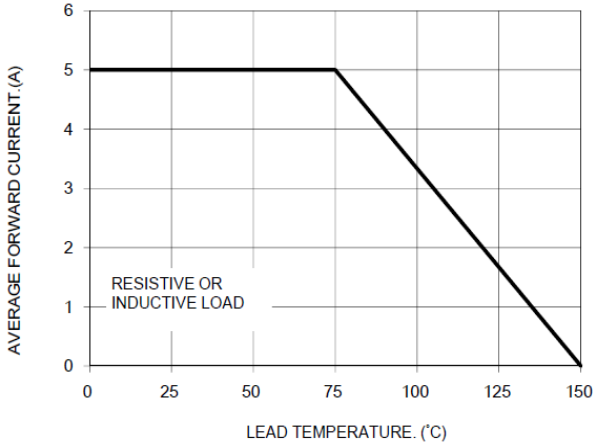


FIG.2- TYPICAL REVERSE CHARACTERISTICS

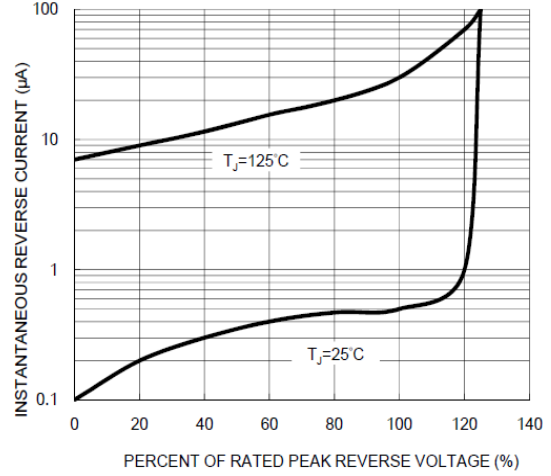


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

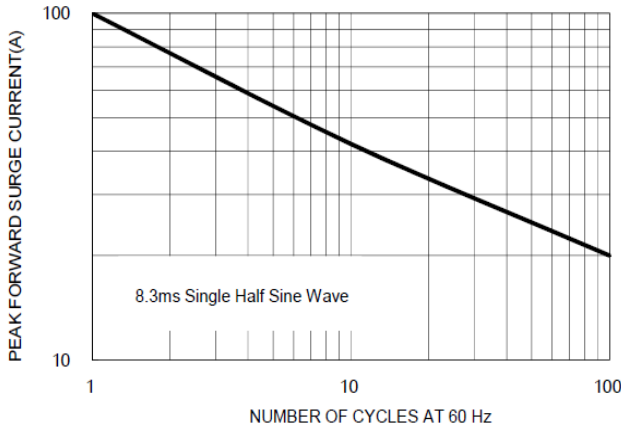


FIG.4 TYPICAL FORWARD CHARACTERISTICS

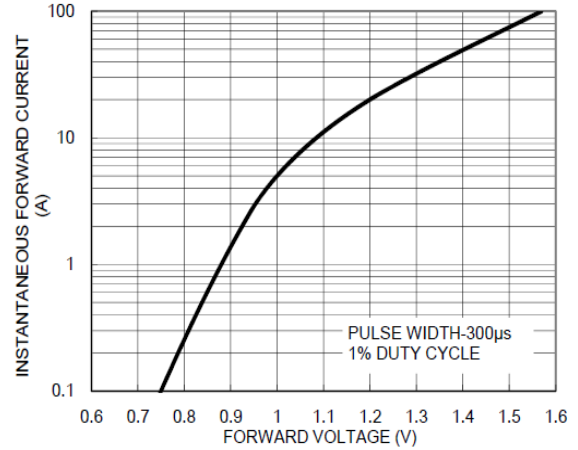


FIG.5 TYPICAL JUNCTION CAPACITANCE

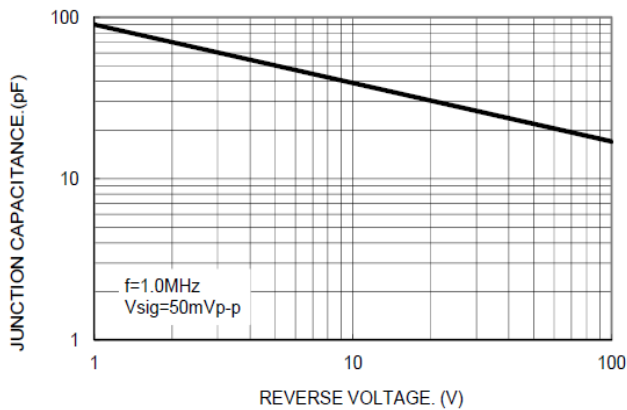
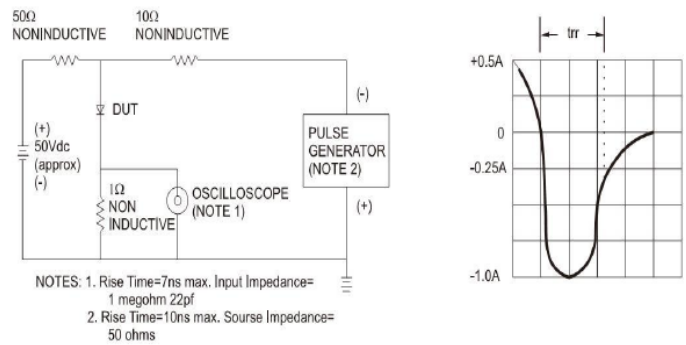


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





S5A THRU S5M

5A, 50V - 1000V Surface Mount Rectifiers

Ordering Information

| Part No. | Package | Packing Code | Packing |
|-----------|----------------|--------------|--------------|
| S5A - S5M | DO-214AB (SMC) | R30 | 3000pcs/Reel |

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