

RoHS Compliant Product  
A suffix of "-C" specifies halogen-free

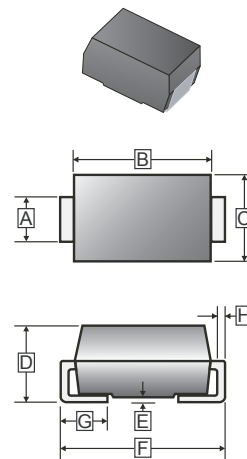
## FEATURES

- Glass passivated junction
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC

## MECHANICAL DATA

- Cases : SMC(DO-214AB)
- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals : Lead Free Plating(Tin Finish)  
Solderable Per MIL-STD-202, Method 208
- Polarity : Cathode Band
- Weight : 0.231 grams(approximate)

## SMC(DO-214AB)



## PACKAGE INFORMATION

| Product       | MPQ       | LeaderSize |
|---------------|-----------|------------|
| QG501C~QG507C | 3K / Reel | 13" inch   |

| REF. | Millimeter |       | REF. | Millimeter |       |
|------|------------|-------|------|------------|-------|
|      | Min.       | Max.  |      | Min.       | Max.  |
| A    | 2.750      | 3.250 | E    | -          | 0.203 |
| B    | 6.520      | 7.110 | F    | 7.750      | 8.130 |
| C    | 5.590      | 6.220 | G    | 0.760      | 1.520 |
| D    | 2.000      | 2.620 | H    | 0.150      | 0.305 |

## MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

| Parameters                                                                         | Symbol                            | Part Number          |            |            |            |            |            |            | Units  |
|------------------------------------------------------------------------------------|-----------------------------------|----------------------|------------|------------|------------|------------|------------|------------|--------|
|                                                                                    |                                   | QG<br>501C           | QG<br>502C | QG<br>503C | QG<br>504C | QG<br>505C | QG<br>506C | QG<br>507C |        |
| Maximum repetitive peak reverse voltage                                            | V <sub>RRM</sub>                  | 50                   | 100        | 200        | 400        | 600        | 800        | 1000       | V      |
| Maximum RMS voltage                                                                | V <sub>RMS</sub>                  | 35                   | 70         | 140        | 280        | 420        | 560        | 700        | V      |
| Maximum DC blocking voltage                                                        | V <sub>DC</sub>                   | 50                   | 100        | 200        | 400        | 600        | 800        | 1000       | V      |
| Maximum average forward rectified current                                          | I <sub>F</sub>                    | 5.0                  |            |            |            |            |            |            | A      |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load | I <sub>FSM</sub>                  | 125                  |            |            |            |            |            |            | A      |
| Maximum Instantaneous Forward Voltage @ I <sub>F</sub> =5A                         | V <sub>F</sub>                    | 1.15                 |            |            |            |            |            |            | V      |
| Maximum DC Reverse Current at Rated DC @ TA=25°C                                   | I <sub>R</sub>                    | 5                    |            |            |            |            |            |            | μA     |
| Blocking Voltage @TA=100°C                                                         |                                   | 50                   |            |            |            |            |            |            |        |
| Typical Junction Capacitance (Note 1)                                              | C <sub>J</sub>                    | 60                   |            |            |            |            |            |            | pF     |
| Thermal Resistance Junction to Ambient                                             | R <sub>θJA</sub>                  | 100                  |            |            |            |            |            |            | °C / W |
| Storage and Operating Temperature Range                                            | T <sub>J</sub> , T <sub>STG</sub> | -55 ~ 150, -55 ~ 150 |            |            |            |            |            |            | °C     |

Notes :

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC

## MAXIMUM RATINGS CURVES

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

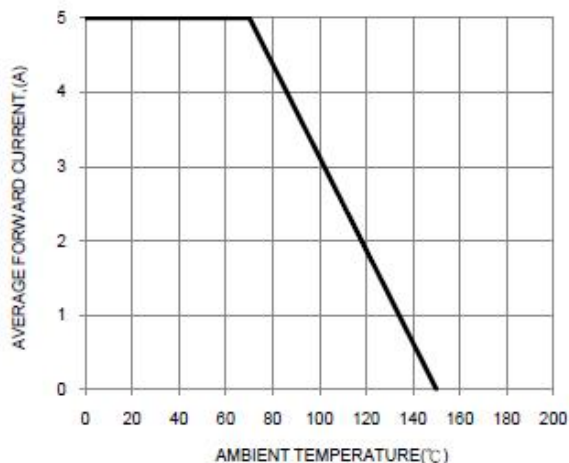


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

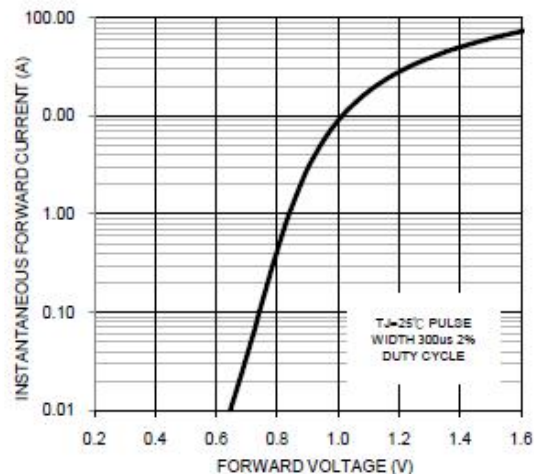


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

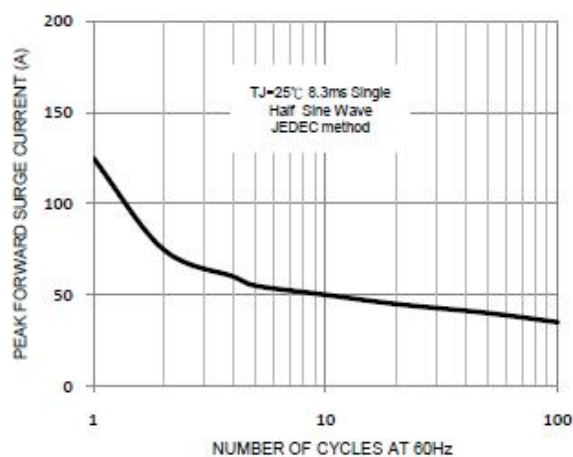


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

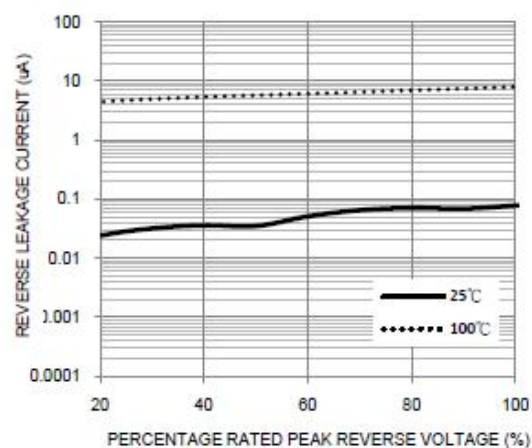


FIG. 5-TYPICAL JUNCTION CAPACITANCE

