

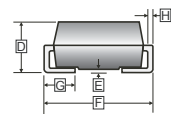
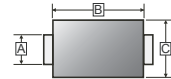
RoHS Compliant Product

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

## FEATURES

- Low profile package
- Ideal for automated placement
- Low reverse current
- Fast reverse recovery time
- Component in accordance to RoHS 2002/95/EC

SMC



## MECHANICAL DATA

- Cases : DO-214AB(SMC)
- 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)

| 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 NUMBERS |             |             |             |             |             |             | UNITS  |
|------------------------------------------------------------------------------------|-----------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------|
|                                                                                    |                                   | SEF<br>501C  | SEF<br>502C | SEF<br>503C | SEF<br>504C | SEF<br>505C | SEF<br>506C | SEF<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>                  | 100          |             |             |             |             |             |             | A      |
| Maximum Instantaneous Forward Voltage @ 3.0A                                       | V <sub>F</sub>                    | 1.00         |             |             | 1.30        | 1.70        |             | V           |        |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ TA=25°C @TA=100°C        | I <sub>R</sub>                    | 5.0          |             |             |             |             |             |             | μA     |
|                                                                                    |                                   | 100          |             |             |             |             |             |             |        |
| Typical Junction Capacitance (NOTE1)                                               | C <sub>J</sub>                    | 80           |             |             |             |             |             |             | pF     |
| Maximum Reverse Recovery Time (NOTE2)                                              | T <sub>rr</sub>                   | 50           |             |             |             | 75          |             |             | ns     |
| Thermal Resistance, Junction to Ambient                                            | R <sub>θJA</sub>                  | 50           |             |             |             |             |             |             | °C / W |
| Storage and Operating Temperature Range                                            | T <sub>STG</sub> , T <sub>J</sub> | -55 ~ 150    |             |             |             |             |             |             | °C     |

### NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
2. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, IRR=0.25A

## CHARACTERISTIC CURVES

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

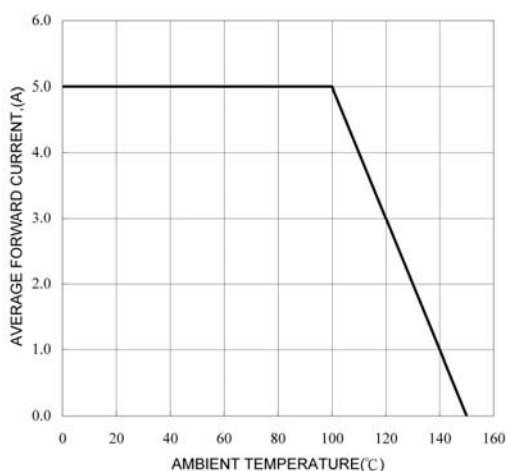


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

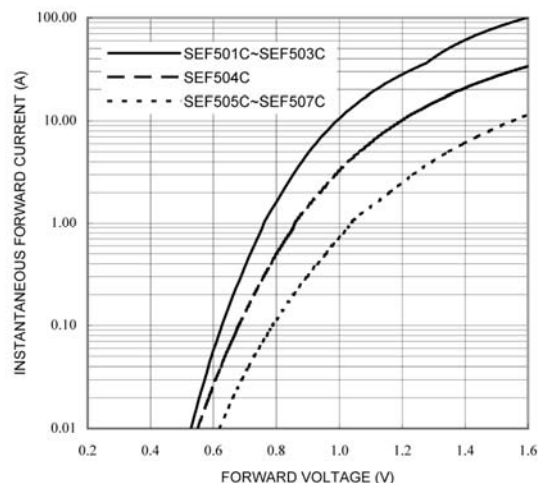


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

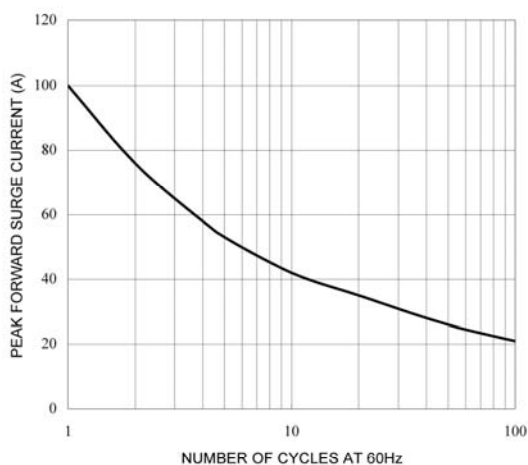


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

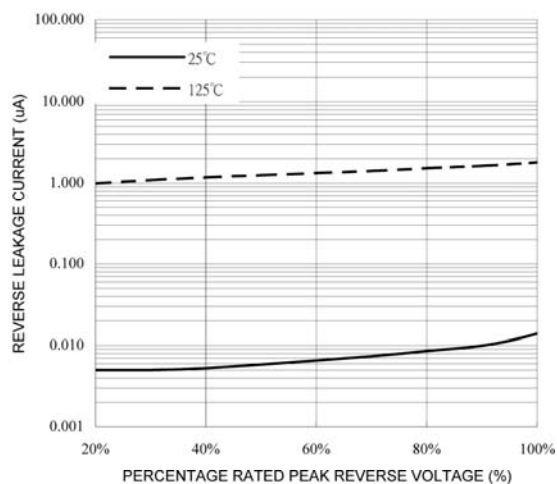


FIG. 5-TYPICAL JUNCTION CAPACITANCE

