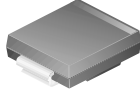


RoHS Compliant Product

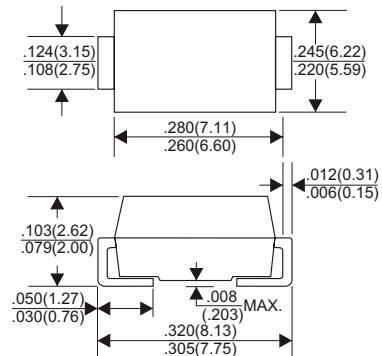
A suffix of "-C" specifies halogen & lead-free



**DO-214AB (SMC)**

**FEATURES**

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction



Dimensions in inches and (millimeters)

**MECHANICAL DATA**

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Metallurgically bonded construction
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 1.10 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

TYPE NUMBER	SM1020C	SM1040C	SM1060C	SM10100C	UNITS
Maximum Recurrent Peak Reverse Voltage	20	40	60	100	V
Working Peak Reverse Voltage	20	40	60	100	V
Maximum DC Blocking Voltage	20	40	60	100	V
Maximum Average Forward Rectified Current, See Fig. 1	10.0				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	180				A
Maximum Instantaneous Forward Voltage at 10A	0.56		0.65	0.83	V
Maximum DC Reverse Current Ta=25 °C	0.3		0.2	0.1	mA
At Rated DC Blocking Voltage Ta=100 °C	22		15	10	mA
Typical Junction Capacitance (Note 1)	380				pF
Typical Thermal Resistance RθJC (Note 2)	10				°C / W
Operating Temperature Range T <sub>J</sub>	-50 ~ +150				°C
Storage Temperature Range T <sub>STG</sub>	-65 ~ +175				°C

**NOTES:**

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

● RATING AND CHARACTERISTIC CURVES (SM1020C THRU SM10100C)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

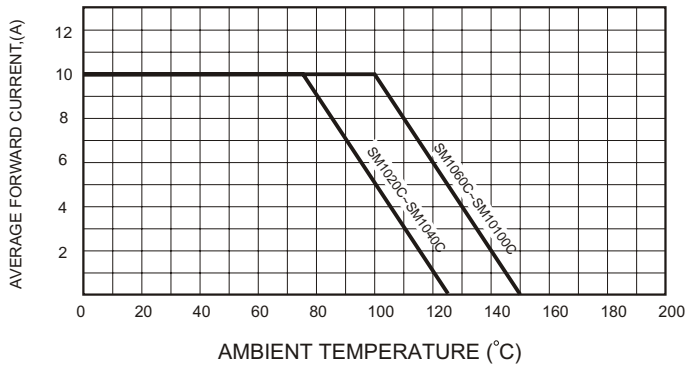


FIG.2-TYPICAL FORWARD CHARACTERISTICS

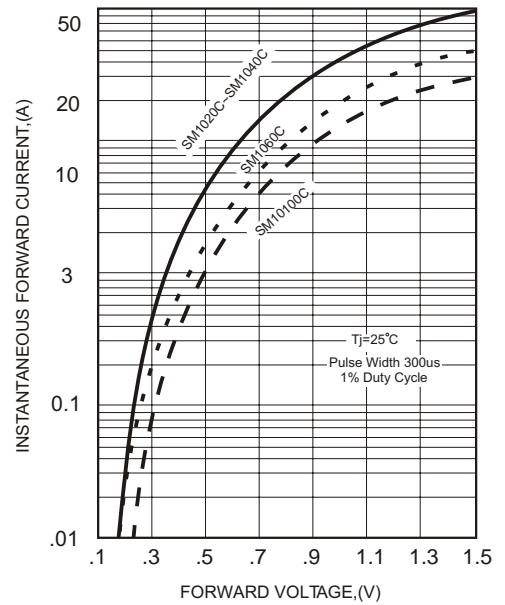


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

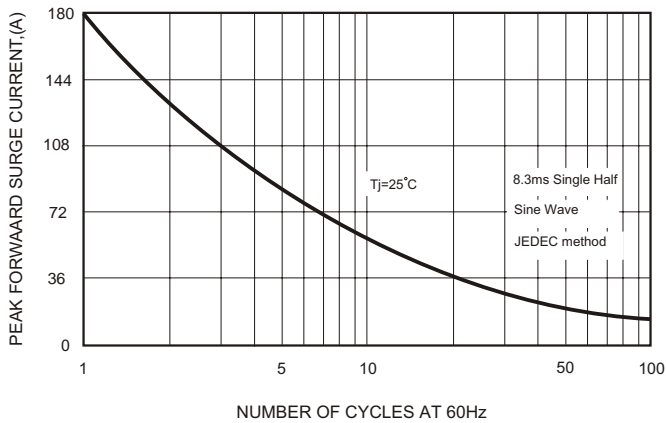


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

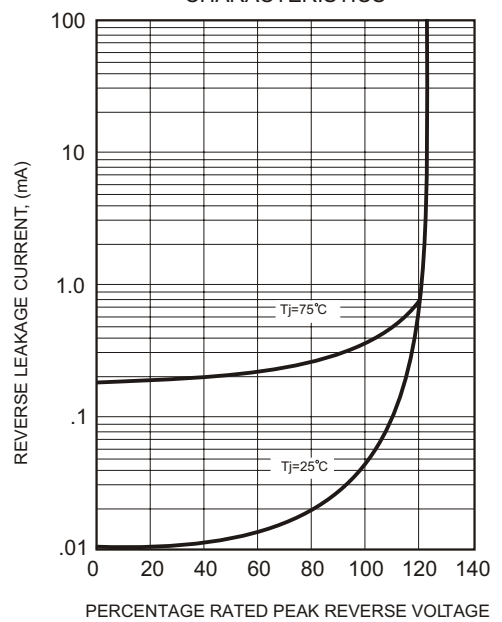


FIG.4-TYPICAL JUNCTION CAPACITANCE

