

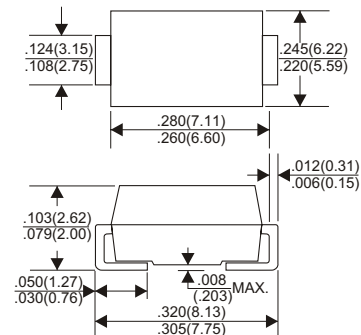
A suffix of "-C" specifies halogen & lead-free



DO-214AB (SMC)

FEATURES

- . Low forward voltage drop
- . High current capability
- . High reliability
- . High surge current capability
- . Epitaxial construction
- . RoHS Compliant Product



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	SM820C	SM840C	SM860C	SM8100C	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	8.0				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	150				A
Maximum Instantaneous Forward Voltage at 8.0A	0.55		0.65	0.83	V
Maximum DC Reverse Current Ta=25°C	0.3		0.15	0.05	mA
At Rated DC Blocking Voltage Ta=100°C	45		22.5	7.5	mA
Typical Junction Capacitance (Note 1)	380				pF
Typical Thermal Resistance RθJC (Note 2)	10				°C / W
Operating Temperature Range T _J	-50 ~ +150				°C
Storage Temperature Range T _{STG}	-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 (SM820C THRU SM8100C)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

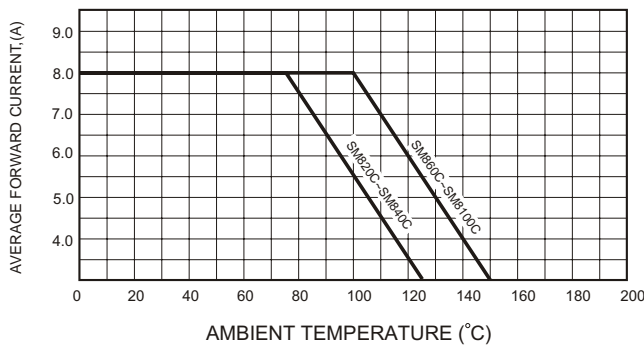


FIG.2-TYPICAL FORWARD CHARACTERISTICS

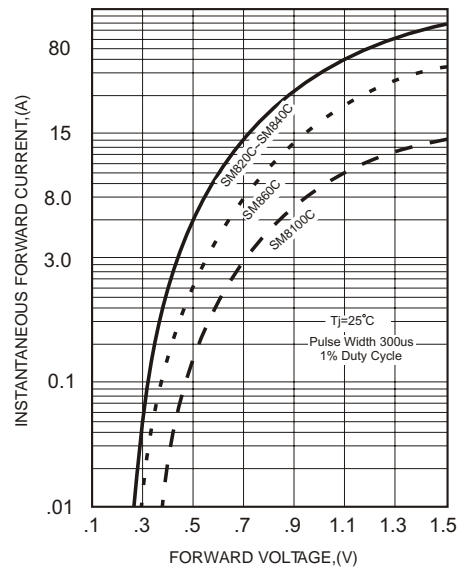


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

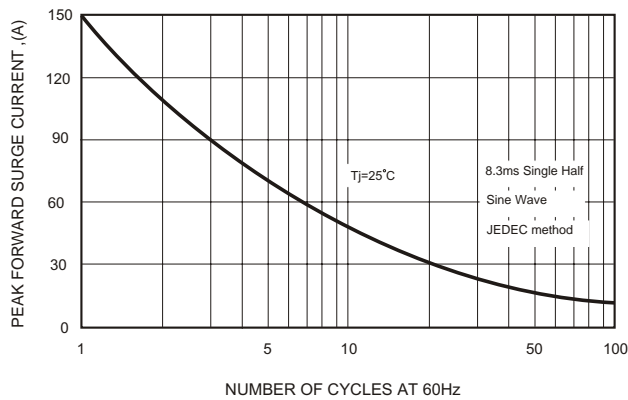


FIG.4-TYPICAL JUNCTION CAPACITANCE

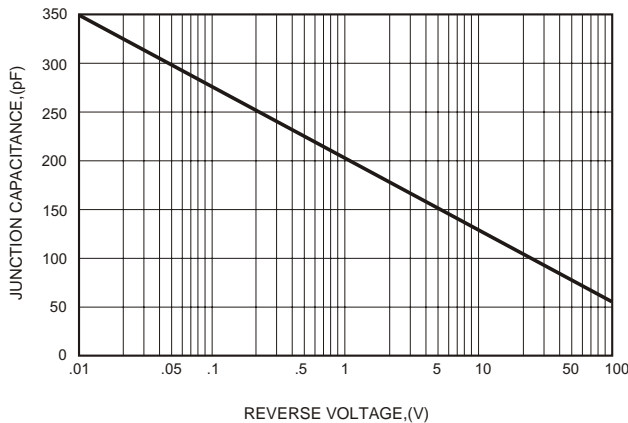


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

