

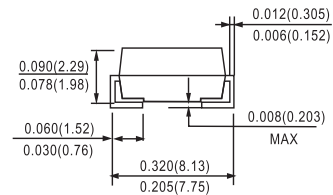
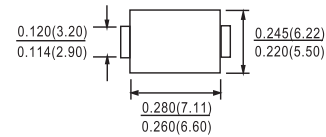
**FEATURES**

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

**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

DO-214AB(SMC)



Dimensions in inches and (millimeters)

**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	SM520C	SM540C	SM560C	SM5100C	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	5.0 A				
Peak Forward Surge Current, 8.3 ms single half Sine-wave superimposed on rated load (JEDEC method)	125 A				
Maximum Instantaneous Forward Voltage at 5.0A	0.55		0.65	0.83	V
Maximum DC Reverse Current Ta=25	0.2		0.1	0.05	mA
At Rated DC Blocking Voltage Ta=100	30		15	7.5	
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.



TAYCHIPST

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

SM520C THRU SM5100C

20V-100V 5.0A

RATINGS AND CHARACTERISTIC CURVES SM520C THRU SM5100C

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

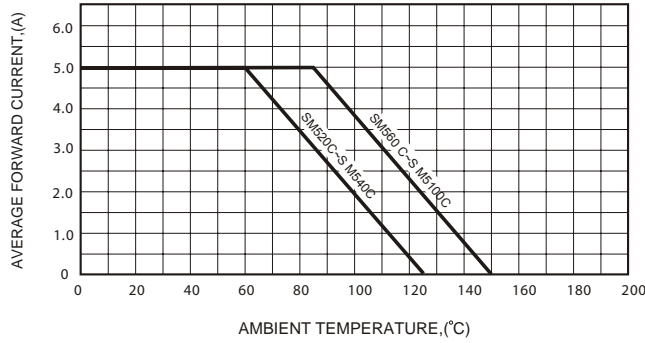


FIG.2-TYPICAL FORWARD CHARACTERISTICS

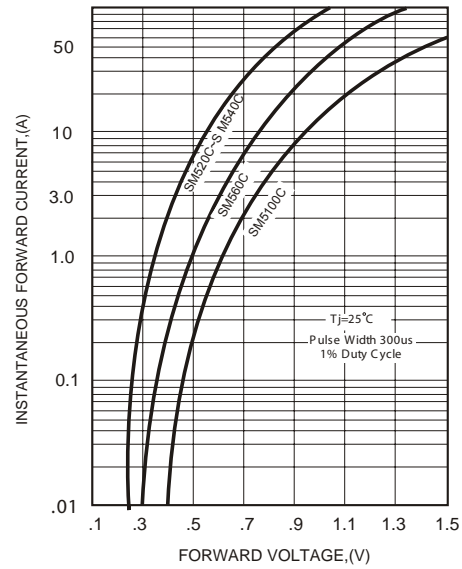


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

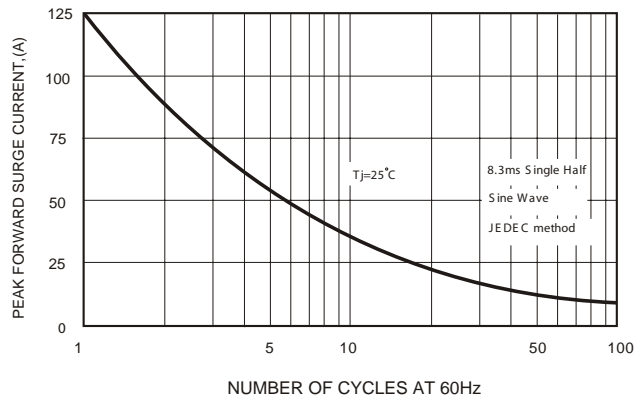


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

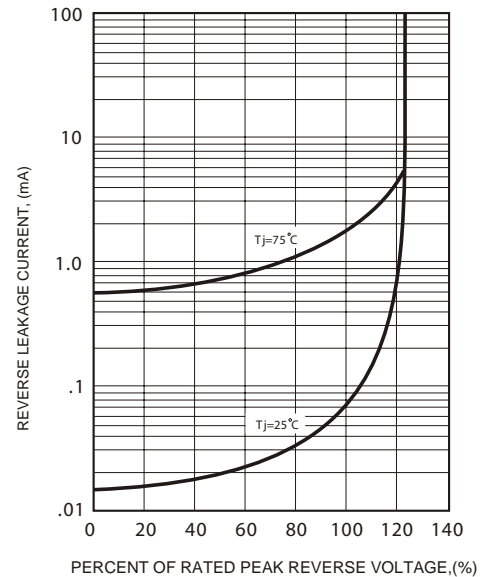


FIG.4-TYPICAL JUNCTION CAPACITANCE

