



TAYCHIPST

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

SM520C THRU SM5100C

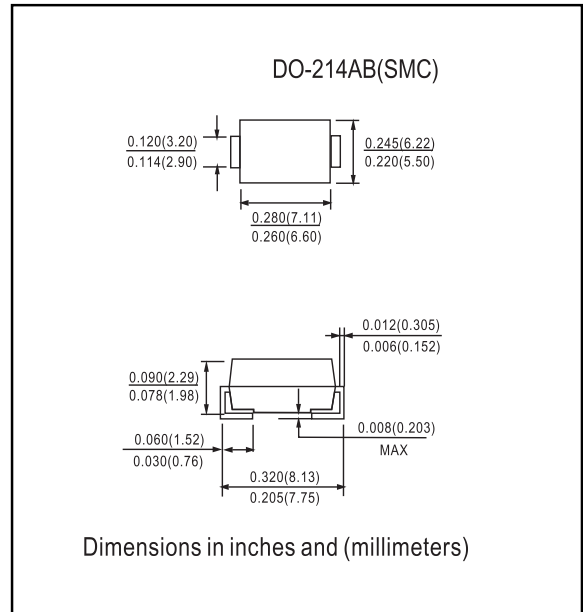
20V-100V 5.0A

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



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 _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.



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RATINGS AND CHARACTERISTIC CURVES SM520C THRU SM5100C

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

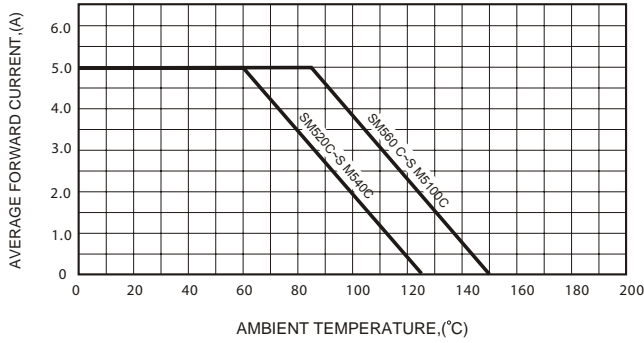


FIG.2-TYPICAL FORWARD CHARACTERISTICS

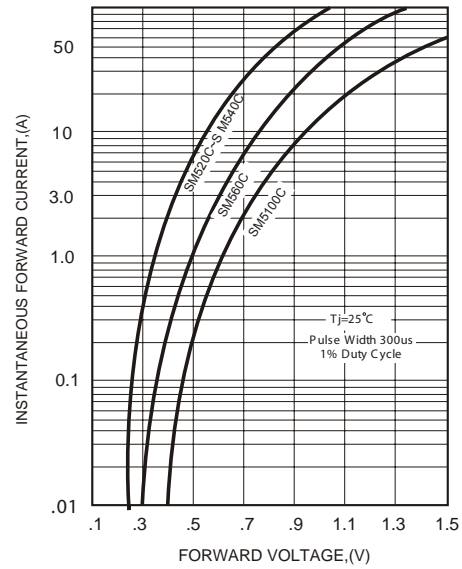


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

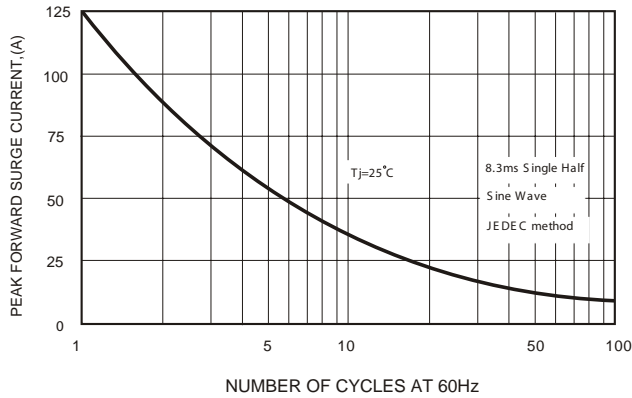


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

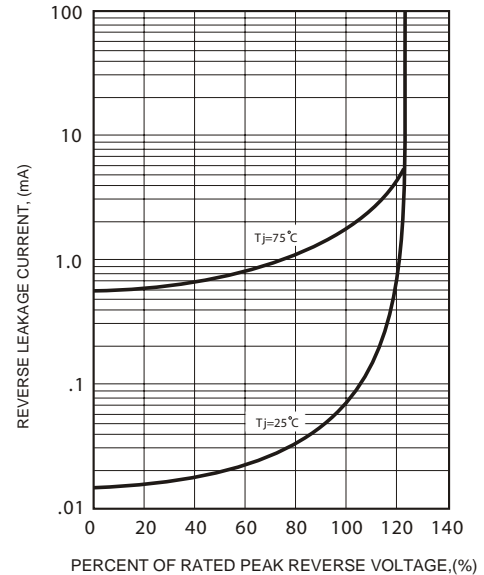


FIG.4-TYPICAL JUNCTION CAPACITANCE

