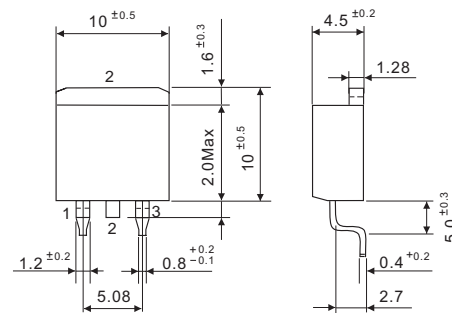


RoHS Compliant Product

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

### D<sup>2</sup>-Pack



Dimensions in millimeters

## FEATURES

- 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: 1.60 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	SM2020D	SM2040D	SM2060D	SM20100D	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	20.0				A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	200				A
Maximum Instantaneous Forward Voltage at 10.0A	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	
Typical Junction Capacitance (Note 1)	700		460	280	pF
Typical Thermal Resistance RθJC (Note 2)	3.0				°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 (SM2020D THRU SM20100D)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

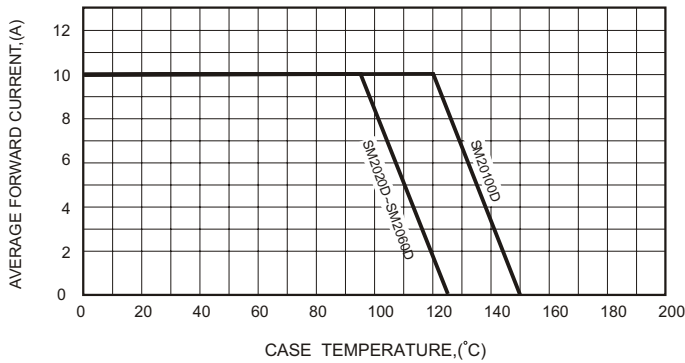


FIG.2-TYPICAL FORWARD CHARACTERISTICS

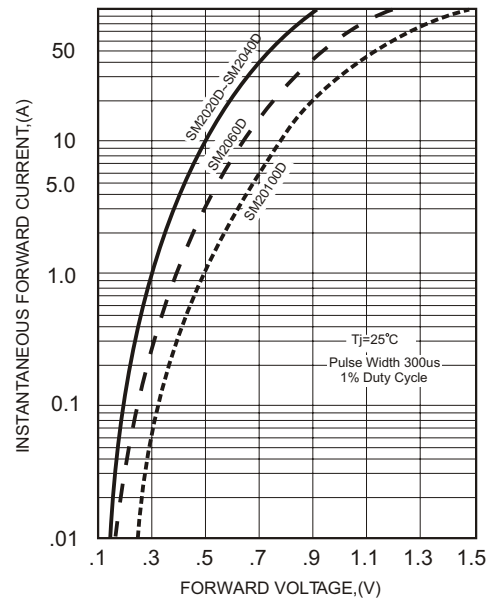


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

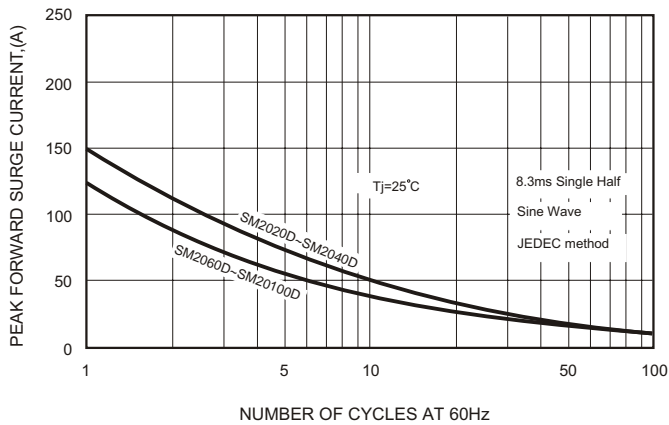


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

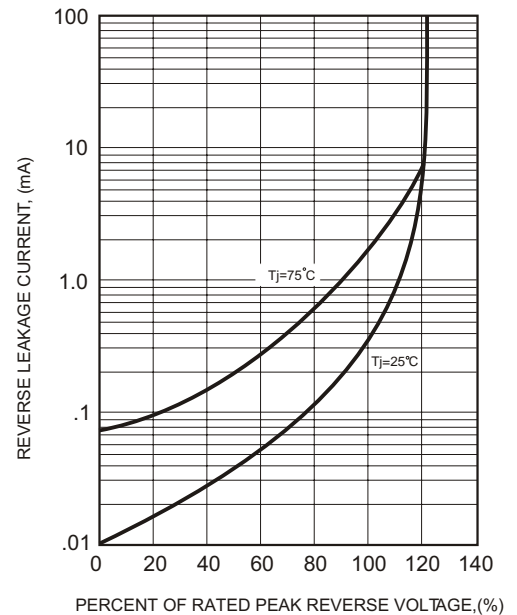


FIG.4-TYPICAL JUNCTION CAPACITANCE

