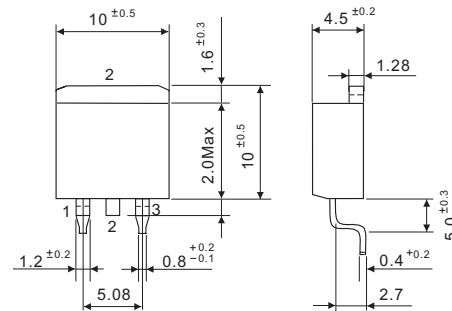


RoHS Compliant Product

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

D²-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 _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 (SM2020D THRU SM20100D)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

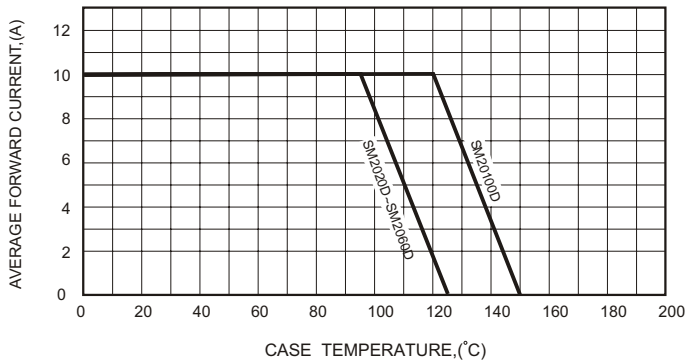


FIG.2-TYPICAL FORWARD CHARACTERISTICS

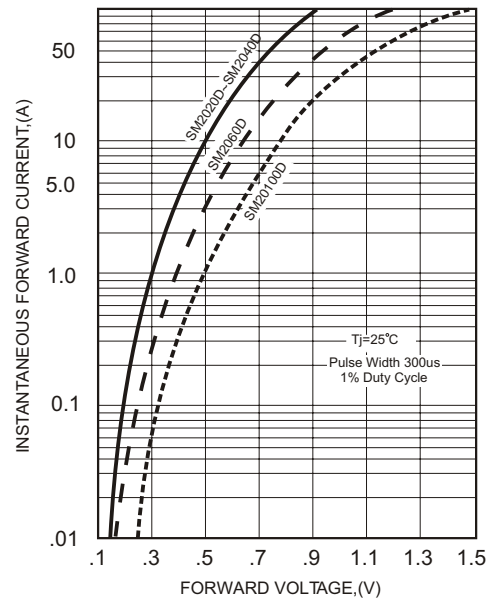


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

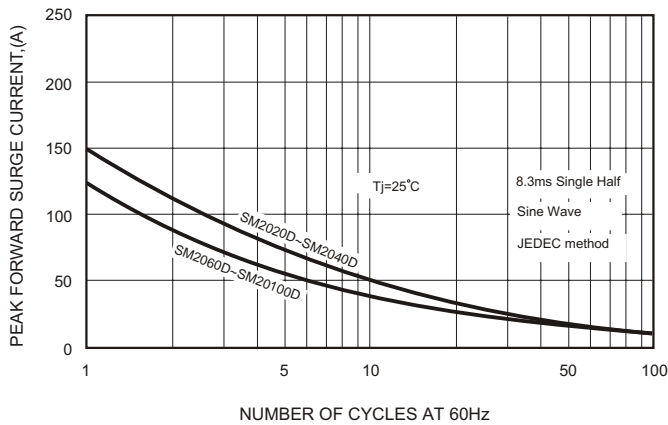


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

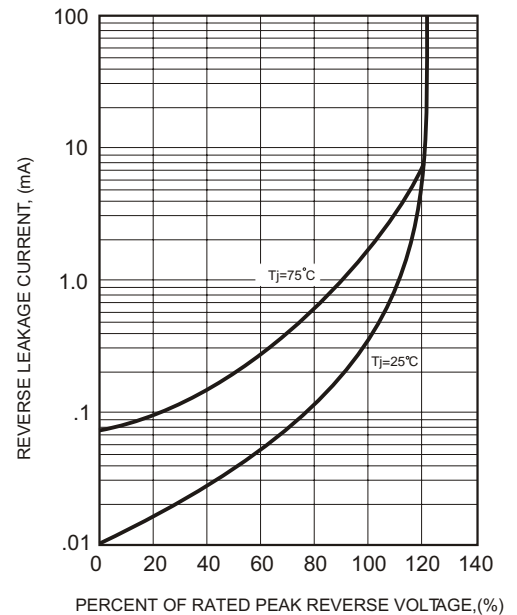


FIG.4-TYPICAL JUNCTION CAPACITANCE

