



Elektronische Bauelemente

SM1020D THRU SM10100D

VOLTAGE 20V ~ 100V

10.0 AMP Surface Mount Schottky Barrier Rectifiers

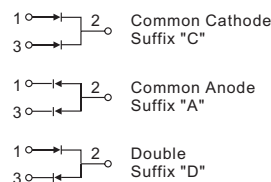
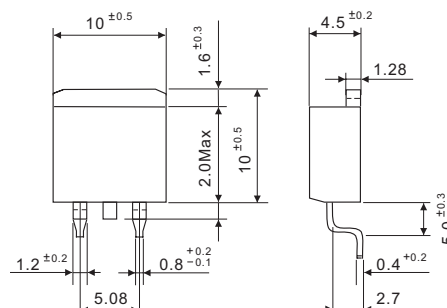
RoHS Compliant Product

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

D²-Pack

FEATURES

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



Dimensions in 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: 1.60 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	SM1020D	SM1040D	SM1060D	SM10100D	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	10.0 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°C	0.3		0.20	0.10	mA
At Rated DC Blocking Voltage Ta=100°C	45		22.5	10	
Typical Junction Capacitance (Note 1)	700		460	280	pF
Typical Thermal Resistance RθJC (Note 2)	3.0				°C / W
Operating Temperature Range Tj	-50 ~ +150				°C
Storage Temperature Range TSTG	-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 (SM1020D THRU SM10100D)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

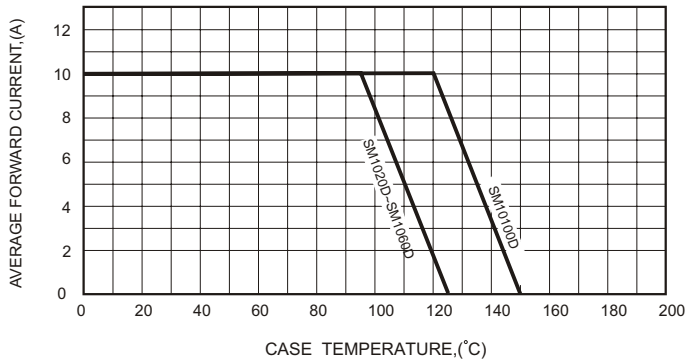


FIG.2-TYPICAL FORWARD

CHARACTERISTICS

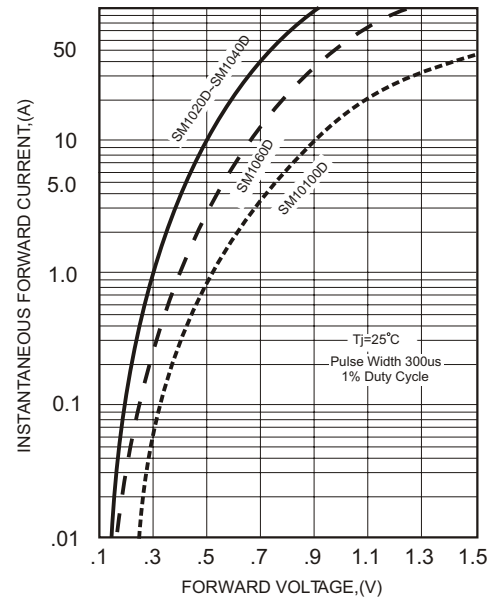


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

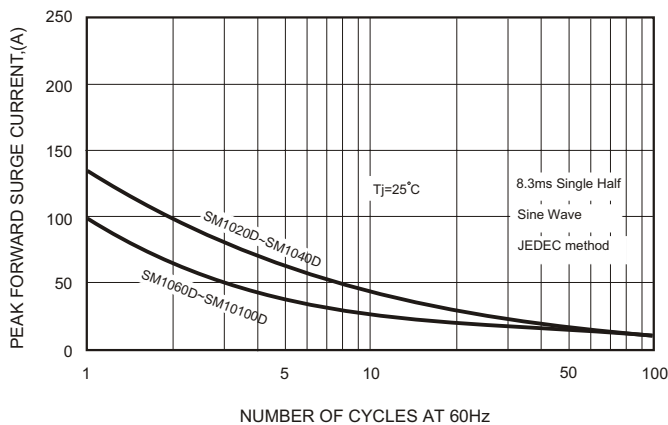


FIG.5 - TYPICAL REVERSE

CHARACTERISTICS

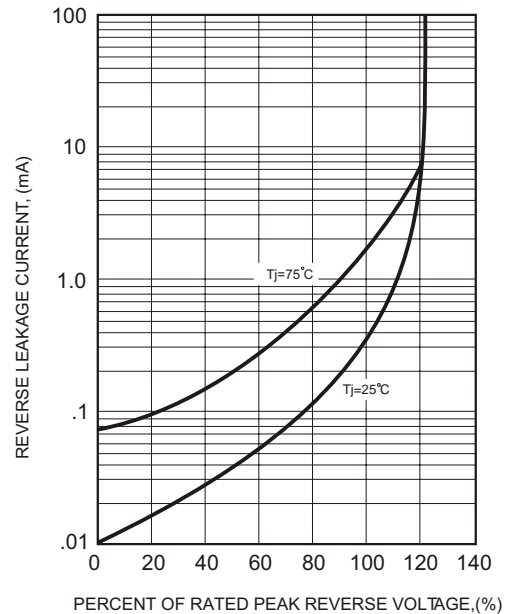


FIG.4-TYPICAL JUNCTION CAPACITANCE

