



Elektronische Bauelemente

# SM120A THRU SM1100A

VOLTAGE 20V ~ 100V

1.0 AMP Surface Mount Schottky Barrier Rectifiers

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

## FEATURES

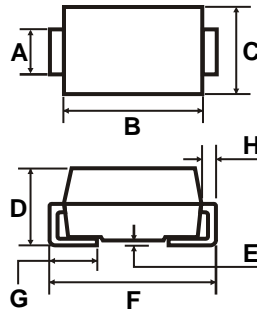
- RoHS Compliant Product
- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Low forward voltage drop

## SMA



## 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: 0.063 grams



	Dimensions in Millimeters		Dimensions in Inches	
<b>A</b>	1.25	1.65	0.049	0.065
<b>B</b>	3.99	4.60	0.157	0.181
<b>C</b>	2.50	2.90	0.098	0.114
<b>D</b>	1.98	2.44	0.078	0.096
<b>E</b>	0.051	0.203	0.002	0.008
<b>F</b>	4.78	5.28	0.188	0.208
<b>G</b>	0.76	1.52	0.030	0.060
<b>H</b>	0.152	0.305	0.006	0.012

## 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	SM120A	SM140A	SM160A	SM1100A	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	1.0 A				
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	35 A				
Maximum Instantaneous Forward Voltage at 1.0A	0.45	0.52	0.65	0.83	V
Maximum DC Reverse Current Ta=25 °C	0.1				mA
At Rated DC Blocking Voltage Ta=100 °C	6				
Typical Junction Capacitance (Note 1)	110				pF
Typical Thermal Resistance RθJA (Note 2)	95				°C / W
Operating Temperature Range T <sub>J</sub>	- 50 ~ + 150				°C
Storage Temperature Range T <sub>STG</sub>	- 60 ~ + 175				°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.

## ● RATING AND CHARACTERISTIC CURVES (SM120A THRU SM1100A)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

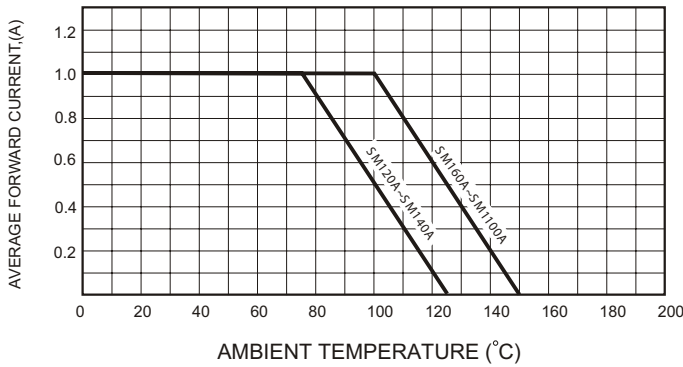


FIG.2-TYPICAL FORWARD CHARACTERISTICS

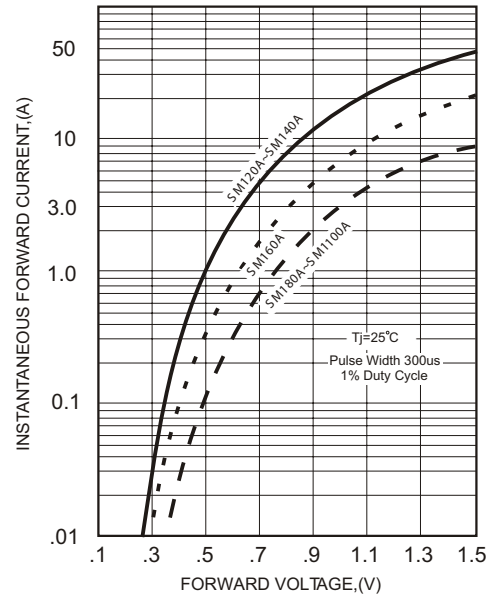


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

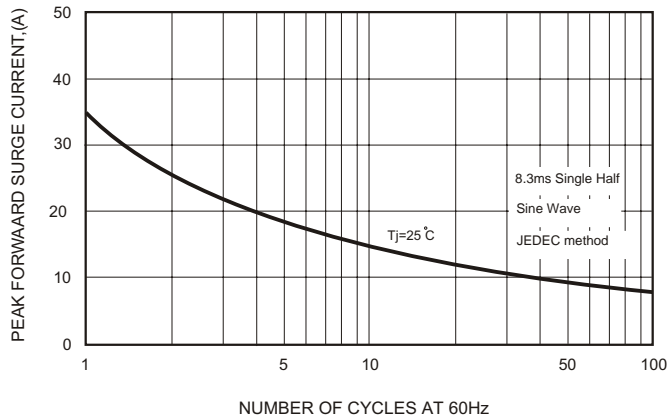


FIG.4-TYPICAL JUNCTION CAPACITANCE

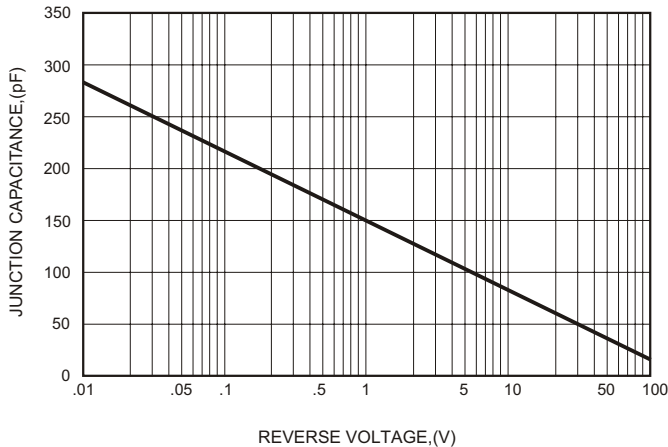


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

