



SEP ELECTRONIC CORP.

# SR120 thru SR1100

**1.0 A Schottky Barrier Rectifier**  
Rectifier Reverse Voltage 20 to 100V



DO-41

## Features

- Extremely low VF
- Epitaxial construction
- Low power loss, high efficiency
- Low stored charge, majority carrier construction
- Plastic material has UL flammability classification 94V-0

## Mechanical Data

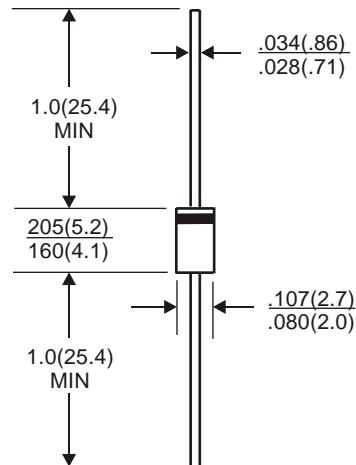
Case: Molded plastic

Terminals: Solder plated solderable per MIL-STD-202,  
Method 208

Polarity: Cathode band

Mounting Position: Any

Weight: 0.34 grams (approx)



All dimensions inches and (millimeters)

## Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
For Capacitive load derate current by 20%.

Parameter	Symbol	SR120	SR130	SR140	SR150	SR160	SR180	SR1100	unit
Maximum recurrent peak reverse voltage	VRRM	20	30	40	50	60	80	100	V
Maximum RMS voltage	VRMS	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	VDC	20	30	40	50	60	80	100	V
Maximum average forward rectified current 9.5 mm lead length (see fig.1)	IF(AV)					1.0			A
Peak forward surge current, single sine-wave superimposed on rated load (JEDEC Method)	IFSM					30			A
Typical thermal resistance	ReJA				50				°C/W
Typical junction capacitance	C <sub>j</sub>				110				pF
storage temperature range	TSTG				-55 to + 150				°C
Operation temperature range	T <sub>j</sub>	-55 to + 125				-55 to + 150			°C

## Electrical Characteristics

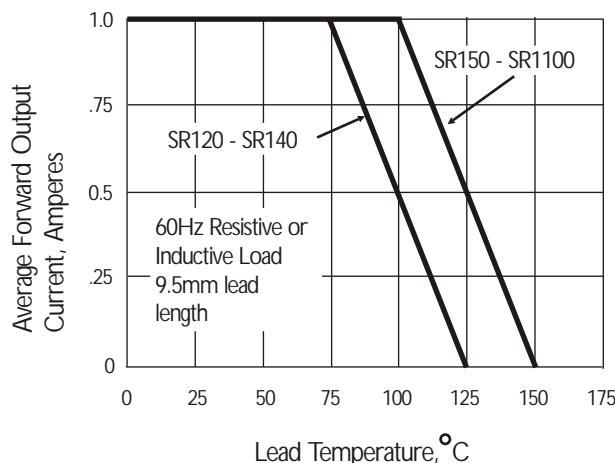
Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
For Capacitive load derate by 20 %.

Parameter	Symbol	SR120	SR130	SR140	SR150	SR160	SR180	SR1100	Unit
Maximum instantaneous forward voltage drop at 1.0A	VF	0.45	0.55		0.70		0.85		V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =100°C	IR				1.0		10.0		mA

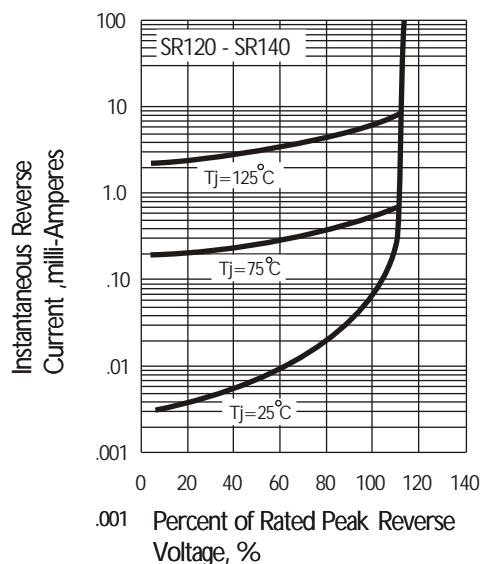
## Rating and Characteristic Curves ( $T_A = 25^\circ\text{C}$ Unless otherwise noted )

### SR120 thru SR1100

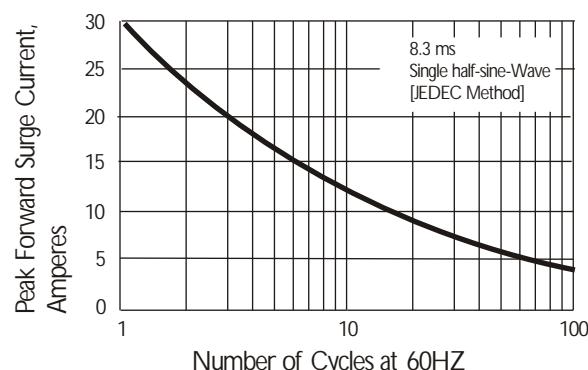
**Fig. 1 Forward Current Derating Curve**



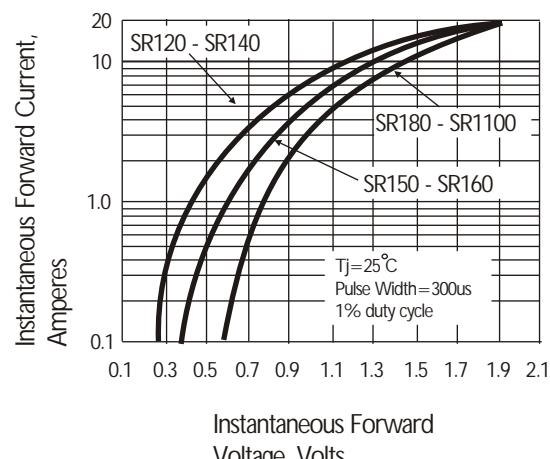
**Fig. 3 Typical Reverse Characteristics**



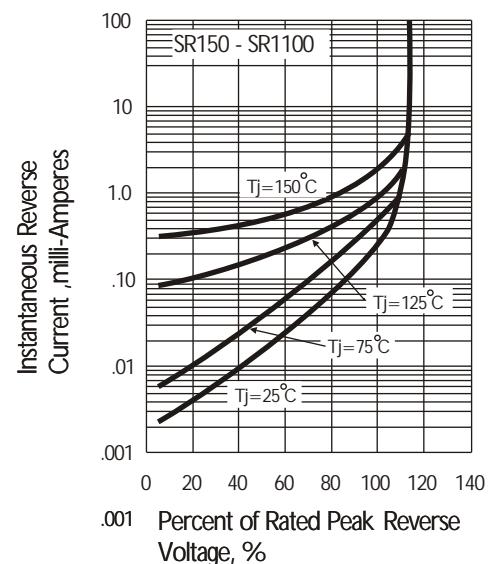
**Fig. 4 Maximum Non-repetitive Forward Surge Current**



**Fig. 2 Typical Instantaneous Forward Characteristics**



**Fig. 3 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**

