

# SS102 - SS1010

# SURFACE MOUNT SCHOTTKY BARRIER DIODES

### VOLTAGE RANGE: 20-100V CURRENT: 10A

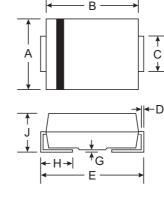
#### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

#### **Mechanical Data**

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)





SMC/DO-214AB							
Dim	Min	Max					
Α	5.59	6.22					
В	6.60	7.11					
С	2.75	3.18					
D	0.15	0.31					
Е	7.75	8.13					
G	0.10	0.20					
н	0.76	1.52					
J	2.00	2.62					
All Dimensions in mm							

#### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

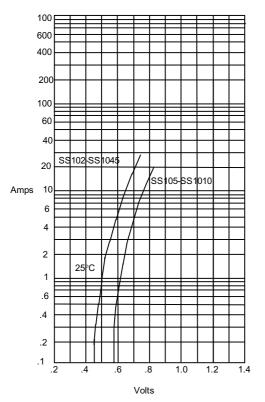
Characteristic	Symbol	SS102	SS103	SS1035	SS104	SS1045	SS106	SS108	SS1010	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	20	30	35	40	45	60	80	100	V
RMS Reverse Voltage	VR(RMS)	14	21	24.5	28	31.5	42	56	70	V
Average Rectified Output Current $@T_L = 90^{\circ}C$	ю	10.0							А	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	FSM	250.0							A	
Forward Voltage $@I_F = 10 A$	Vfm	0.65 0.85						V		
Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 100^{\circ}C$	RM	1.0 20							mA	
Typical junction capacitance (Note1)	Сı	500							pF	
Typical Thermal Resistance (Note 2)	R <i>θ</i> JA	18							°C/W	
Operating Temperature Range	Tj	-65 to +125						°C		
Storage Temperature Range	Tstg	-65 to +150						°C		

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C. 2.P.C.B. mounted with 0.2x0.2 "(5.0x5.0mm) copper pad areas

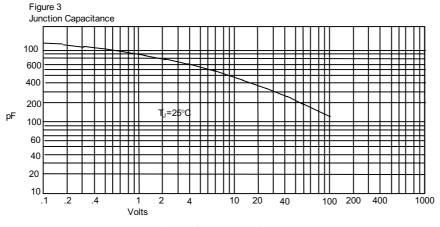


# **RATINGS AND CHARACTERISTIC CURVES SS102 THRU SS1010**

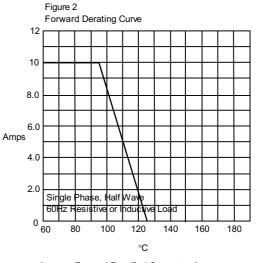
Figure 1 Typical Forward Characteristics

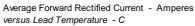


Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts



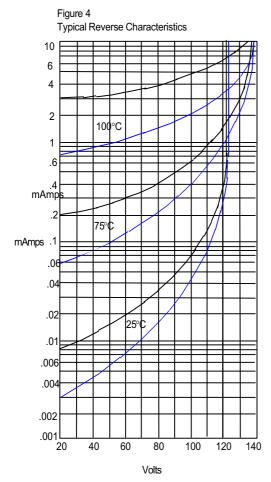
Junction Capacitance - pF *versus* Reverse Voltage - Volts

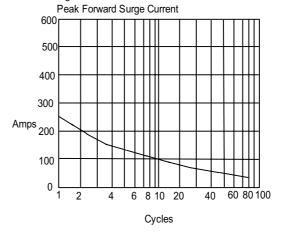






## **RATINGS AND CHARACTERISTIC CURVES SS102 THRU SS1010**





Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

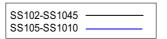


Figure 5

Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts