

# SK102 - SK1010

## SURFACE MOUNT SCHOTTKY BARRIER DIODES

#### VOLTAGE RANGE: 20-100V CURRENT: 10.0A

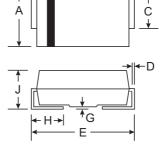
#### **Features**

- 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.)





В

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						
E	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%.

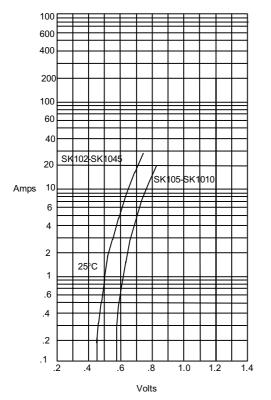
Characteristic	Symbol	SK102	SK103	SK1035	SK104	SK1045	SK106	SK108	SK1010	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	20	30	35	40	45	60	80	100	V
RMS Reverse Voltage	VR(RMS)	14	21	24.5	28	31.5	42	56	70	V
Average Rectified Output Current $@T_L = 90^{\circ}C$	ю	10.0							А	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	Ifsm	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 $@T_A = 100^{\circ}C$	Irm	1.0 20							mA	
Typical junction capacitance (Note1)	Сэ	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.

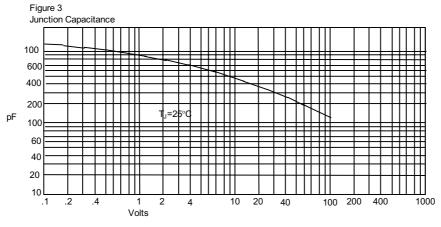


### **RATINGS AND CHARACTERISTIC CURVES SK102 THRU SK1010**

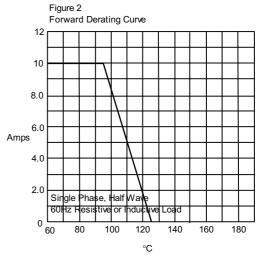
Figure 1 Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts



Junction Capacitance - pF versus Reverse Voltage - Volts



Average Forward Rectified Current - Amperes versus Lead Temperature - C