

## S8AC - S8MC SURFACE MOUNT RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V CURRENT: 8.0 A

## **Features**

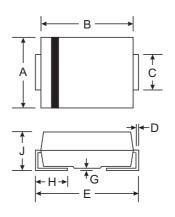
- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O

## **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					
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

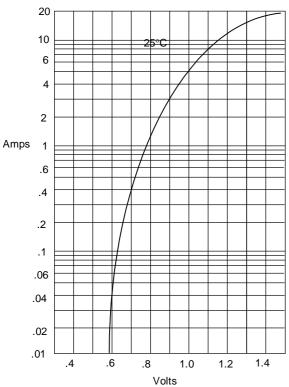
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	S8AC	S8BC	S8DC	S8GC	S8JC	S8KC	S8MC	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	٧
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>A</sub> = 75°C	lo	8.0						Α	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	300						Α	
Forward Voltage @I <sub>F</sub> = 8.0A	VFM	1.2						V	
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	lгм	10 100						μΑ	
Typical Junction Capacitance (Note 1)	Cj	150						pF	
Typical Thermal Resistance Junction to Ambient	RθJA	30						°C/W	
Operating Temperature Range	Tj	-50 to +150						°C	
Storage Temperature Range	Тѕтс	-50 to +150						°C	

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes *versus* Instantaneous Forward Voltage - Volts

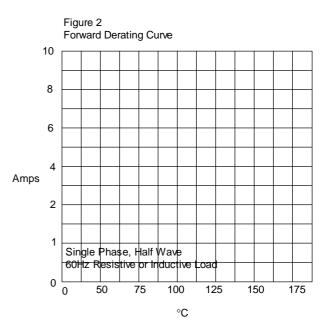
Figure 4
Peak Forward Surge Current

350
300
200

Amps
100
50
0
1 2 4 6 8 10 20 40 60 80 100

Cycles

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



Average Forward Rectified Current - Amperes versus Ambient Temperature -  $^{\circ}\text{C}$