

# S10A - S10M SURFACE MOUNT RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V CURRENT: 10 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

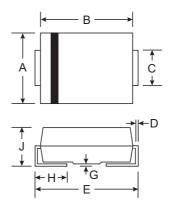
Polarity: Cathode Band or Cathode Notch

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%.

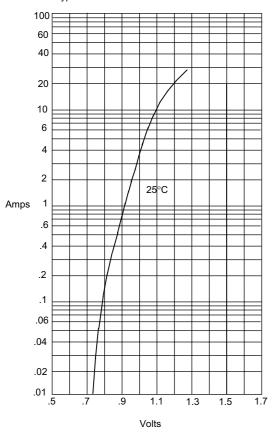
Characteristic	Symbol	S10A	S10B	S10D	S10G	S10J	S10K	S10M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>A</sub> = 75°C	Ю	10						Α	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	İFSM	200							А
Forward Voltage @I <sub>F</sub> = 10A	VFM	1.2							V
	lгм	10 100							μΑ
Typical Junction Capacitance (Note 1)	Cj	60						pF	
Typical Thermal Resistance Junction to Ambient	$R_{ heta}$ JA	10						°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.

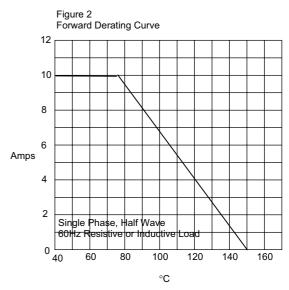


# **RATINGS AND CHARACTERISTIC CURVES S10A THRU S10M**

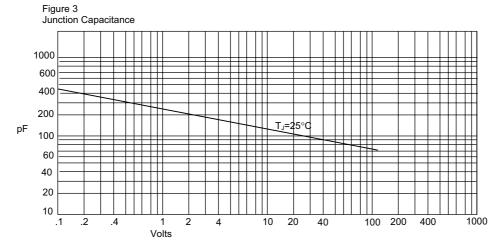
Figure 1 Typical Forward Characteristics



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



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

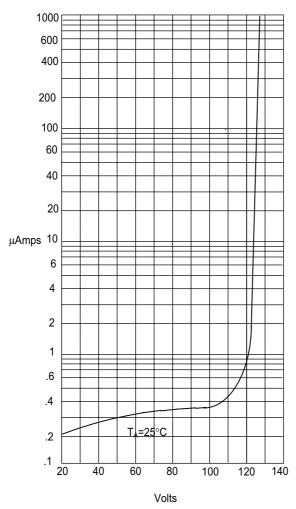


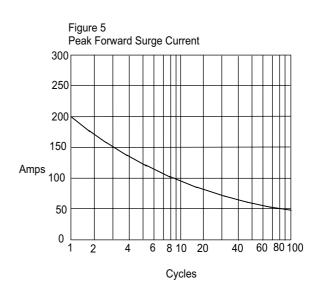
Junction Capacitance - pF *versus* Reverse Voltage - Volts



### **RATINGS AND CHARACTERISTIC CURVES S10A THRU S10M**

Figure 4
Typical Reverse Characteristics





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

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