

## S5A - S5M SURFACE MOUNT RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V CURRENT: 5.0 A

## **Features**

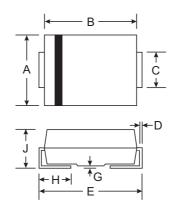
- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O



- 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 TA = 25°C unless otherwise specified

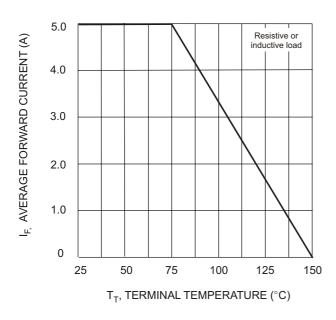
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

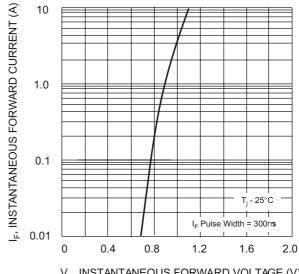
Characteristic		Symbol	S5A	S5B	S5D	S5G	S5J	S5K	S5M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		Vrrm Vrwm Vr	50	100	200	400	600	800	1000	V
RMS Reverse Voltage		VR(RMS)	35	70	140	280	420	560	700	٧
Average Rectified Output Current @T_	= 75°C	lo	5.0						А	
Non-Repetitive Peak Forward Surge Cur 8.3ms Single half sine-wave superimpos rated load (JEDEC Method)		İFSM				100				А
Forward Voltage @I <sub>F</sub>	= 5.0A	Vғм	1.15						V	
	= 25°C = 125°C	lгм	10 250						μΑ	
Typical Junction Capacitance (Note 1)		Cj				40				pF
Typical Thermal Resistance (Note 2)		$R_{ heta}$ JL				10				°C/W
Operating and Storage Temperature Rar	nge	Tj, TSTG			-	65 to +15	0			°C

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

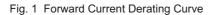
2. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.







V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



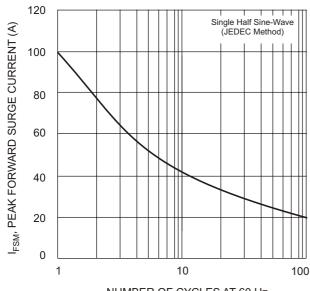


Fig. 3 Forward Surge Current Derating Curve

I<sub>R</sub>, INSTANTANEOUS REVERSE CURRENT (mA) 10 1.0 T<sub>i</sub> = 25°C 0.1 0.01

60

80

100

120

140

20

40

T<sub>i</sub> = 125°C

PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 4 Typical Reverse Characteristics NUMBER OF CYCLES AT 60 Hz

1000

100