

**General Purpose Diode**

**Reverse Voltage - 1600V**

**Forward Current - 5 A**

**FEATURES**

- ◆ The plastic package carries UL Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals

**Mechanical Characteristics**

- ◆ Case: DO-214AB/SMC
- ◆ body over passivated chip
- ◆ Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ Polarity: Color band denotes cathode end
- ◆ Mounting Position: Any

**Absolute Maximum Ratings and Electrical characteristics**

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %



PARAMETER	SYMBOL	S5WC	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	1600	V
Maximum RMS voltage	$V_{RMS}$	1120	V
Maximum DC blocking voltage	$V_{DC}$	1600	V
Maximum average forward rectified current	$I_{F(AV)}$	5	A
Peak forward surge current (NOTE1)	$I_{FSM}$	120	A
Maximum instantaneous forward voltage at 5A	$V_F$	1.1	V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25\text{ }^{\circ}\text{C}$ $I_R$	5	uA
	$T_A=100\text{ }^{\circ}\text{C}$ $I_{RT}$	200	uA
Typical junction capacitance (NOTE 2)	$C_j$	60	pF
Typical Thermal Resistance Junction to Ambient (NOTE3)	$R_{\theta JA}$	55	°C/W
Typical Thermal Resistance Junction to Lead (NOTE3)	$R_{\theta JA}$	15	°C/W
Operating Temperature Range	$T_j$	-55 to 150	°C
Storage Temperature Range	$T_{stg}$	-55 to 150	°C

Note1: 8.3ms single half sine-wave superimposed on rated load

Note2: Measured at 1MHz and applied reverse voltage of 4.0V DC.

Note3: PCB. mounted with 16×16mm copper pad areas

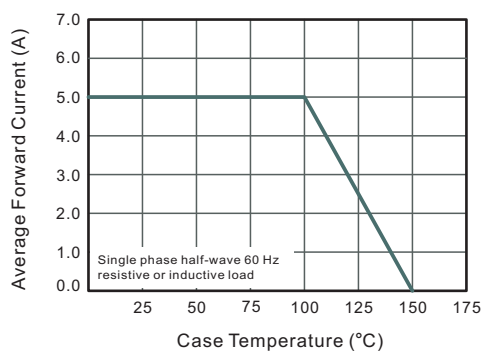
**Pinning**

1.Cathode	2.Anode
 	
<b>DO-214AB/SMC</b>	

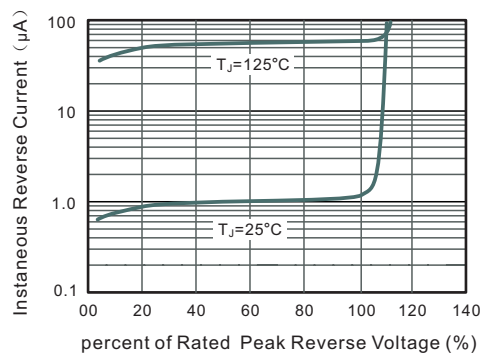
**Marking Code**

<b>S5WC</b>	<b>YFW S5W</b>
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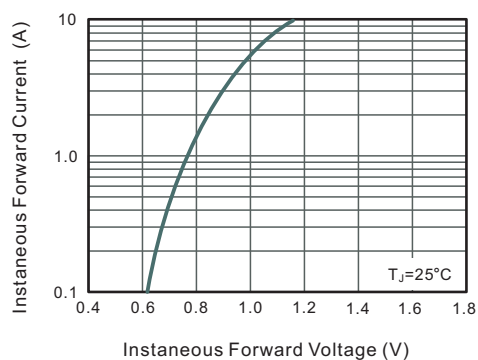
**Fig.1 Forward Current Derating Curve**



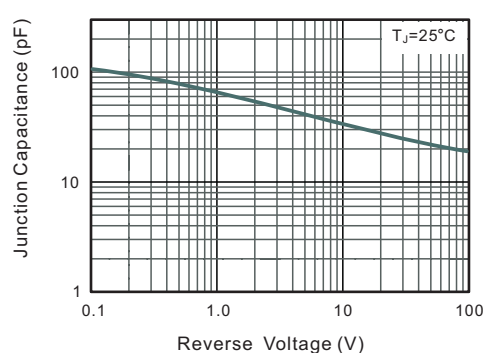
**Fig.2 Typical Reverse Characteristics**



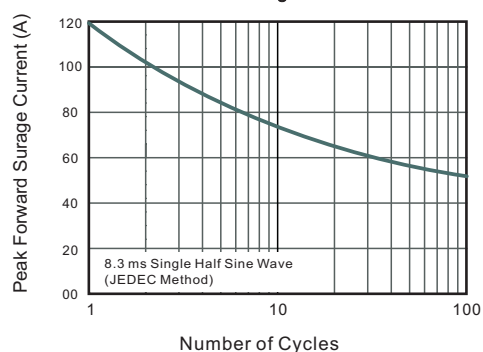
**Fig.3 Typical Forward Characteristic**



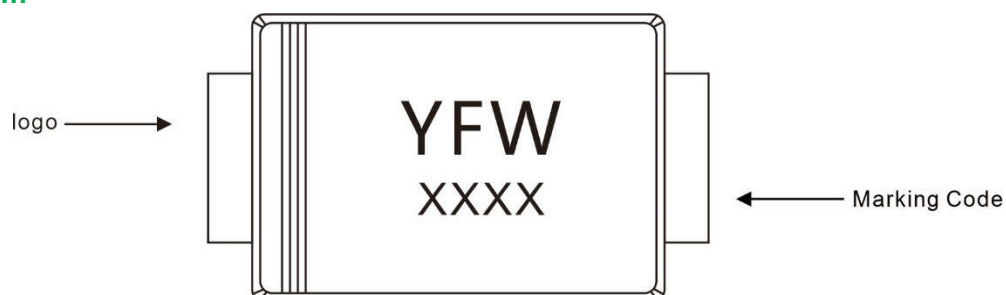
**Fig.4 Typical Junction Capacitance**



**Fig.6 Maximum Non-Repetitive Peak Forward Surge Current**



## Marking Diagram



## Ordering information

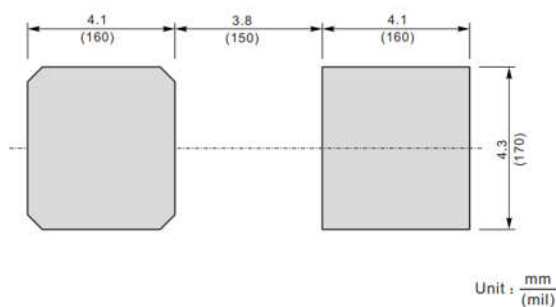
Package	Packing Description	Packing Quantity
DO-214AB SMC	Tape/Reel, 13" reel	3000PCS/Reel 30000PCS/Carton

## Package Dimensions

### DO-214AB SMC

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	2.00	2.62	79	103
E	6.5	7.0	256	276
D	5.6	6.2	220	244
E <sub>1</sub>	7.6	8.0	299	315
A <sub>1</sub>	0.05	0.21	2.0	8.3
C	0.15	0.31	5.9	12
L	0.9	1.6	35	63
b	2.75	3.25	108	128

## The recommended mounting pad size



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