



### **Surface Mounted Standard Rectifiers**

S1W~S1Y 1A 1600 to 2000V DO-214AC(SMA)

#### **Features**

- ♦ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ♦ Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- ♦ High temperature soldering guaranteed 250°C/10 seconds at terminals



Case : Molded plastic body

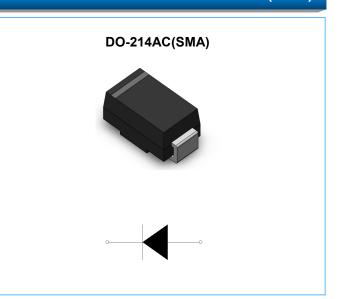
◆ Terminals : Solder plated, solderable per MIL-STD-750,

Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

♦ Weight : 0.0023 ounce, 0.07 grams



### Maximum Ratings and Electrical Characteristics (at T<sub>A</sub> =25℃ unless otherwise noted)

Items		Symbol	S1W	S1X	S1Y	Unit
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	1600	1800	2000	V
Maximum RMS voltage		V <sub>RMS</sub>	1120	1260	1400	V
Maximum DC blocking voltage		V <sub>DC</sub>	1600	1800	2000	V
Maximum average forward rectified current at T <sub>L</sub> =100°C		I <sub>(AV)</sub>	1		А	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load		I <sub>FSM</sub>	30		А	
Maximum instantaneous forward voltage at 1A		V <sub>F</sub>	1.1		V	
Maximum DC reverse current at rated DC blocking voltage	T <sub>A</sub> =25℃	I <sub>R</sub>	10		μΑ	
	T <sub>A</sub> =125°C		500			
Typical junction capacitance (Note1)		C₁	18		pF	
Typical thermal resistance		$R_{qJA}$	80		°C/W	
Operating junction and storage temperature range		T <sub>J</sub> , T <sub>STG</sub>	-55 to +150		${\mathbb C}$	

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



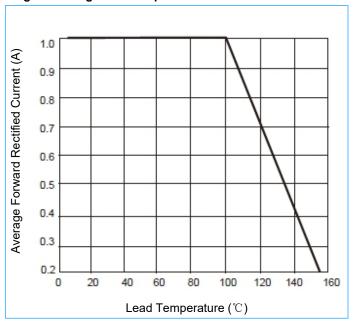


# **Surface Mounted Standard Rectifiers**

**S1W~S1Y** 1A 1600 to 2000V DO-214AC(SMA)

Characteristic Curves (T<sub>A</sub> = 25<sup>o</sup>Cunless otherwise noted)

Fig1. Derating Curve Output Rectified Current



**Current Per Leg** 

Fig2. Maximum Non-Repetitive Peak Forward Surge

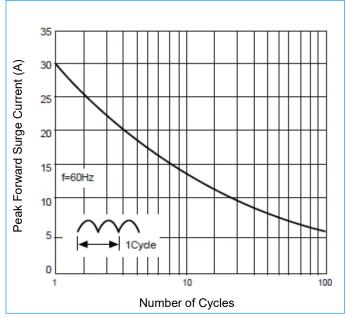


Fig3. Typical Forward Voltage Characteristics

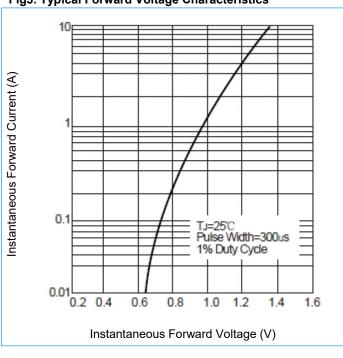
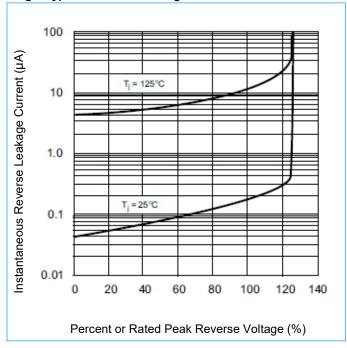


Fig4. Typical Reverse Leakage Characteristics





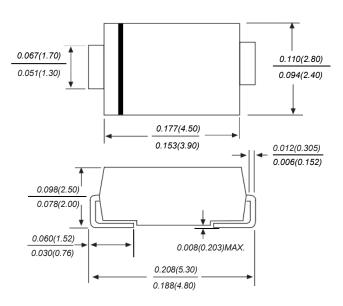


# **Surface Mounted Standard Rectifiers**

S1W~S1Y 1A 1600 to 2000V DO-214AC(SMA)

### **Package Outline**

### DO-214AC(SMA)



**Dimensions in inches and (millimeters)** 

#### **Packaging Information**

Part Number	Component Package	Quantity	
S1W~S1Y	DO-214AC(SMA)	5000 PCS/REEL	

### Warning



- ♦ SOCAY owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property.
- SOCAY reserves the right to make changes without further notice to any products herein.
- SOCAY makes no warranties, representations or warranties as to the fitness of its products for any particular purpose, and disclaims any liability.
- ♦ The parameters provided in the SOCAY datasheet specification may vary from application to application, and the actual performance may vary over time. All operating parameters must be verified by the customer's technical expert before application.
- Any and all responsibilities and liabilities are disclaimed if any item under this notice of warning is not complied with.