

# **SS12U THRU SS120U**

1.0AMP Surface Mount Schottky Barrier Rectifier

#### **Features**

- · Schottky Brrier Chip
- · Low Power Loss, High Efficiency
- · Ideally Suited for Automatic Assembly
- · Surge Overload Rating to 35A Peak
- Plastic Case Material has UL Flammability Classification Rating 94V-0

#### **Mechanical Data**

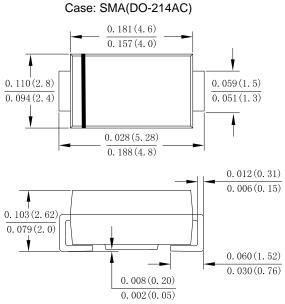
· Case: Molded plastic SMA

 Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed

· Polarity: Color band denotes cathode end

Mounting Position: Any

· Making: Type Number



Dimensions in inches and (millimeters)

### **Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

	•											
Type Number	SYMBOL	SS 12U	SS 13U	SS 14U	SS 145U	SS 15U	SS 16U	SS 18U	SS 110U	SS 115U	SS 120U	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	31	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	45	50	60	80	100	150	200	V
Average Rectified Output Current @T∟ =100 °C	IF(AV)	1.0										Α
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	<b>İ</b> FSM	35									А	
Rating for fusing (t<8.3ms)	l²t	5.08									$A^2 s$	
Forward Voltage @IF=1.0A	V <sub>FM</sub>	0.50				0	.67	0.82		0.9		V
Peak Reverse Current @Ta =25°C		0.1 0.05									^	
At Rated DC Blocking Voltage @TA =100 °C	l <sub>R</sub>	10 5									mA	
Typical Junction Capacitance (Note 1)	Сл	50 35							pF			
Typical Thermal Resistance per leg	Rejl	110									$^{\rm C/W}$	
Operating Temperature Range	Тл	-55 to+150										$^{\circ}$
Storage Temperature Range	Тѕтс	-55 to +150									$^{\circ}$	

#### Note:

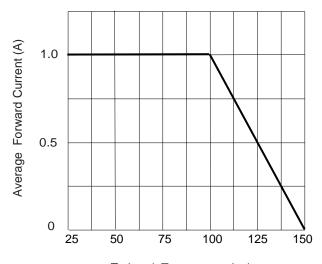
1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

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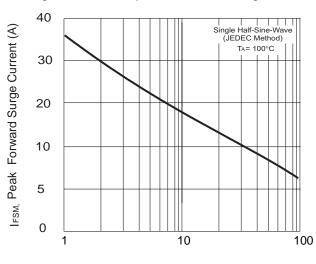
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Fig. 1 Forward Current Derating Curve



T<sub>L</sub> Lead Temperature(°C)

Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



Number Of Cycles At 60 Hz

Fig.5 Mounting PAD Layout

SMA PAD LAYOUT

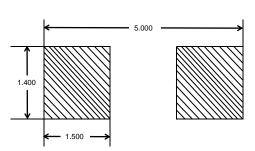
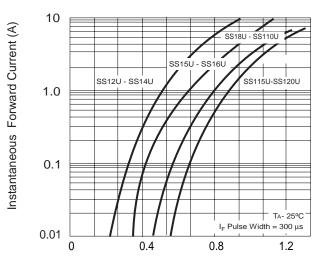
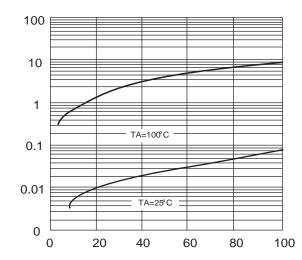


Fig. 2 Typ. Forward Characteristics



V<sub>F</sub>, Instantaneous Forward Voltage (V)

Fig.4 Typical Reverse Chracteristics (per element)



Instantaneous Reverse Current (mA)

Percent Of Rated Peak Reverse Voltage (%)

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