

### 1.0A Surface Mount Rectifier

#### Features

- Low profile surface mounted package
- Ideal for automated placement
- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering: 250 °C / 10 seconds at terminals
- RoHS compliant



DO-214AC  
(SMA)



#### Mechanical Data

<b>Case:</b>	JEDEC DO-214AC(SMA) molded plastic
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Solder plated, solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	0.002 ounce, 0.064 gram

#### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted)

Symbol	Description	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Unit	Conditions	
<b>VRRM</b>	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V		
<b>VRMS</b>	Maximum RMS Voltage	35	70	140	280	420	560	700	V		
<b>VDC</b>	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V		
<b>IF(AV)</b>	Maximum Average Forward Rectified Current	1.0								A	
<b>IFSM</b>	Peak Forward Surge Current	40					30			A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method) TL=110°C
<b>TJ, TSTG</b>	Operating Junction and Storage Temperature Range	-55 to 150								°C	

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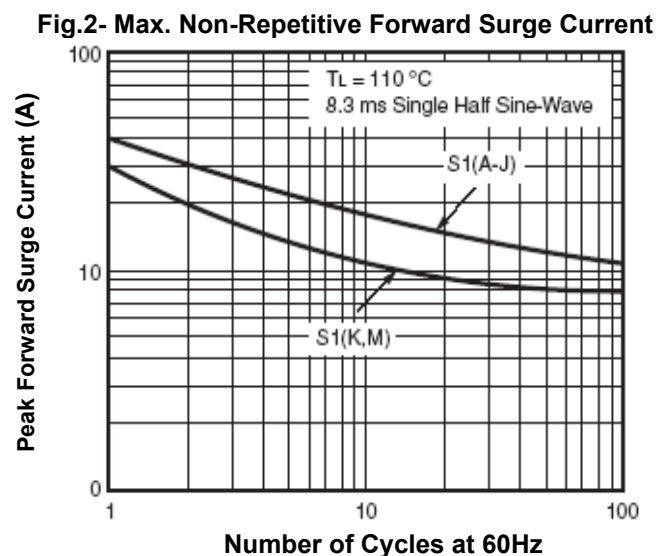
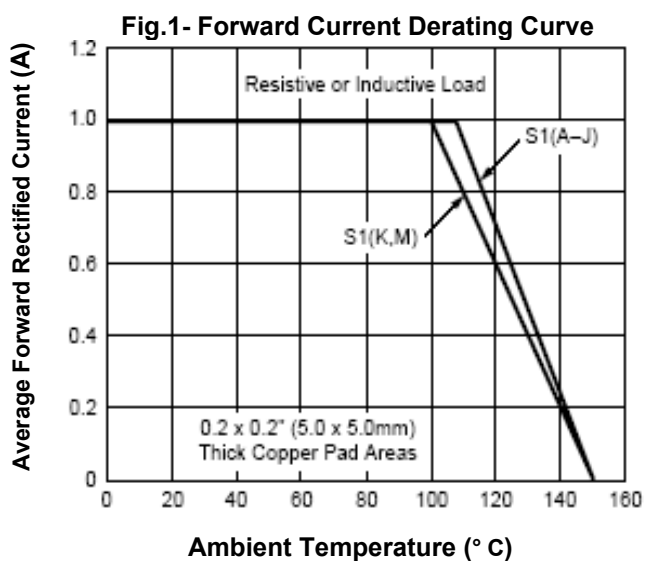
## S1A - S1M

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted)

Symbol	Description	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Unit	Conditions
$V_F$	Maximum Instantaneous Forward Voltage	1.1							V	$I_F=1.0$ A
$I_R$	Maximum DC Reverse Current at Rated DC Blocking Voltage	1.0				5.0			$\mu A$	$T_A=25^{\circ}C$
		50								$T_A=125^{\circ}C$
$T_{rr}$	Typical Reverse Recovery Time	1.8							$\mu S$	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
$C_J$	Typical Junction Capacitance	12							pF	$V_R=4V, f=1MHz$
$R_{\theta-JA}$	Typical Thermal Resistance	75				85			$^{\circ}C/W$	Note 1
$R_{\theta-JL}$		27				30				

- Note:** (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.
- (2) Single phase half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

### Typical Characteristics Curves



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## S1A - S1M

Fig.3- Typical Instantaneous Forward Characteristics

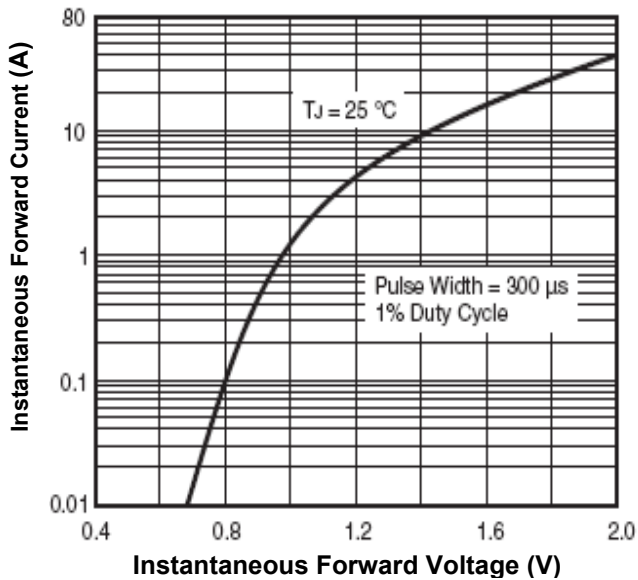


Fig.4- Typical Reverse Characteristics

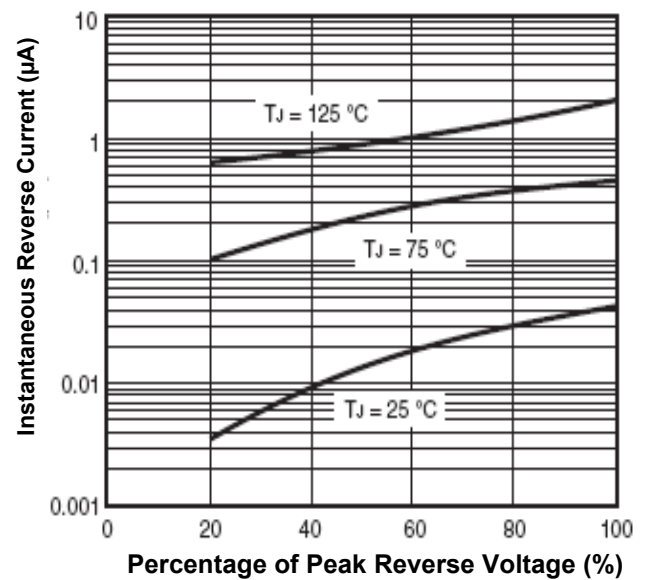
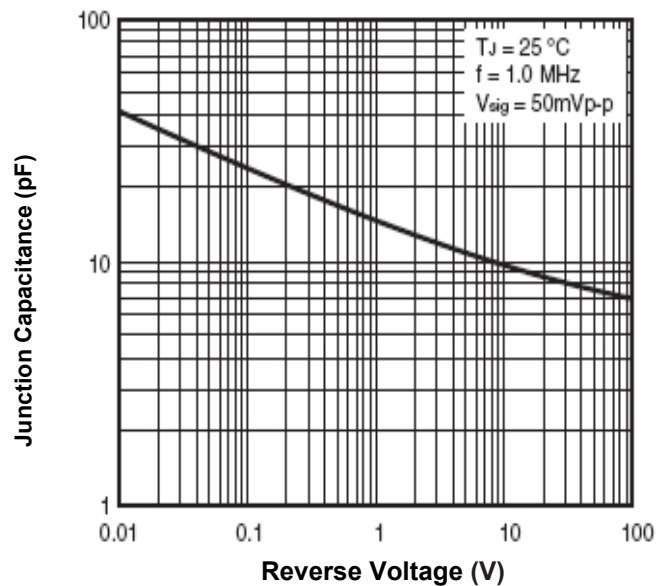


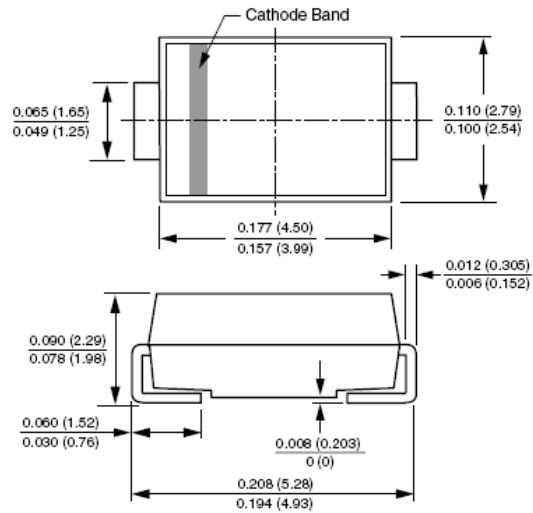
Fig.5- Junction Capacitance



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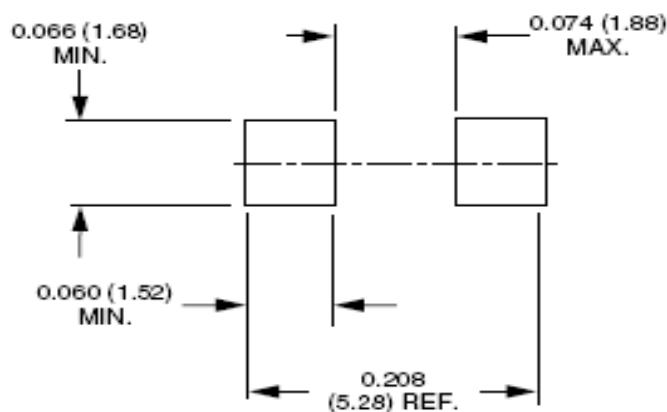
## S1A - S1M

### Dimensions in inch (mm)



**DO-214AC  
(SMA)**

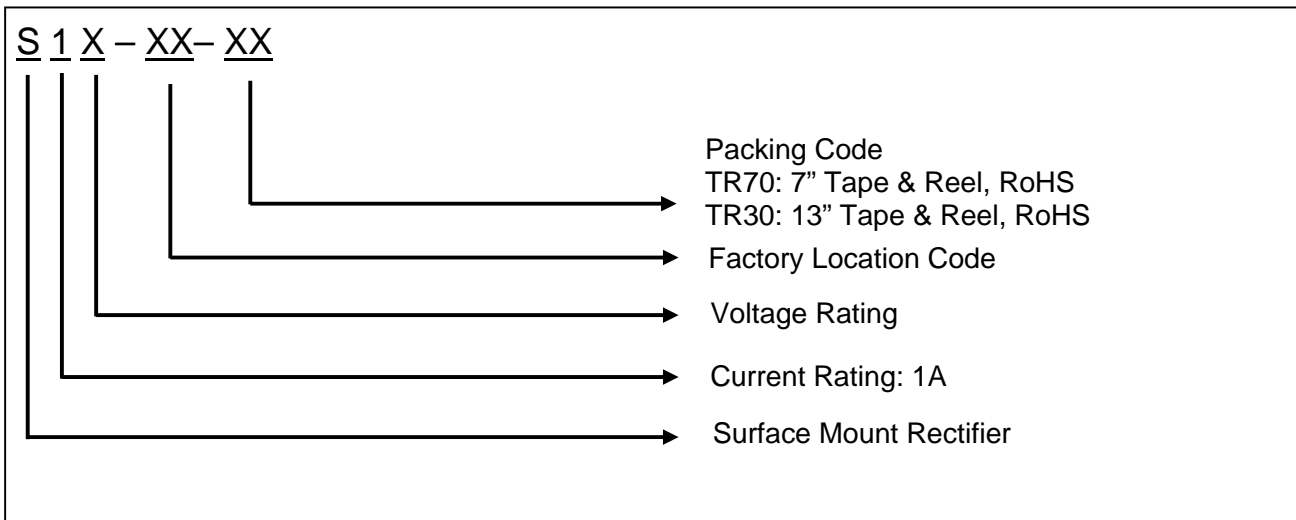
### Mounting Pad Layout in inch (mm)



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## S1A - S1M

### Ordering Information



### How to contact us

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