

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

Case:	JEDEC DO-214AC(SMA) molded plastic
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Solder plated, solderable per MIL-STD-750, Method 2026
Polarity:	Color band denotes cathode end
Weight:	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
VRRM	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
IF(AV)	Maximum Average Forward Rectified Current	1.0							A	
IFSM	Peak Forward Surge Current	40				30			A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method) TL=110°C
TJ, TSTG	Operating Junction and Storage Temperature Range	-55 to 150							°C	

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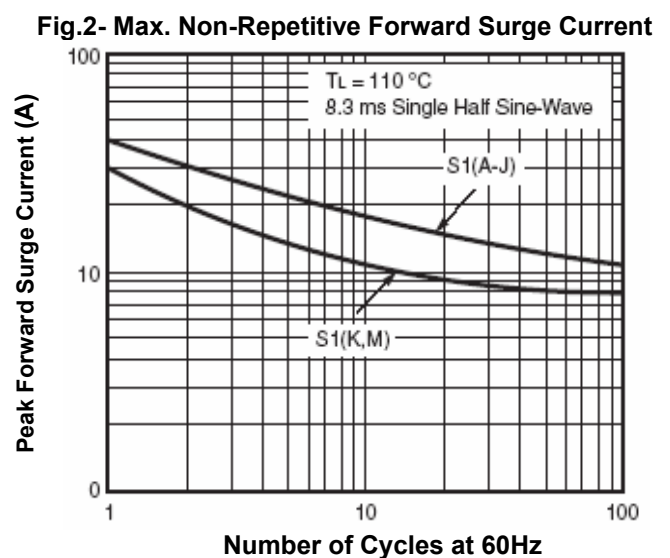
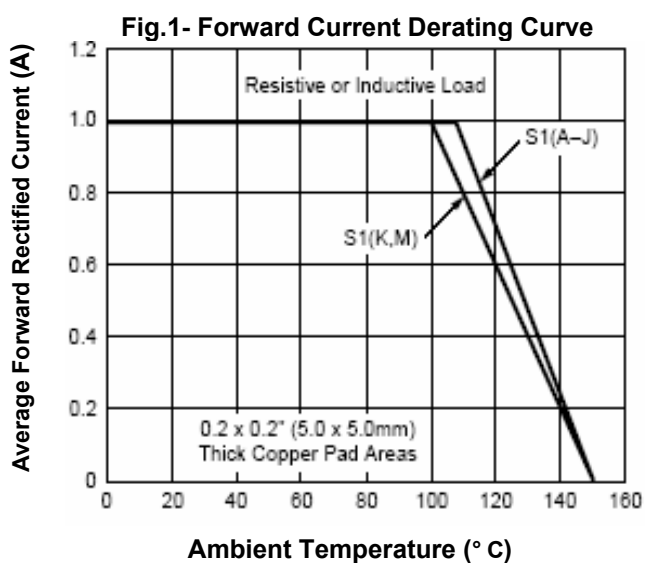
S1A - S1M

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		μA	$T_A=25^{\circ}C$
		50								$T_A=125^{\circ}C$
T_{rr}	Typical Reverse Recovery Time	1.8							μS	$I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$
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

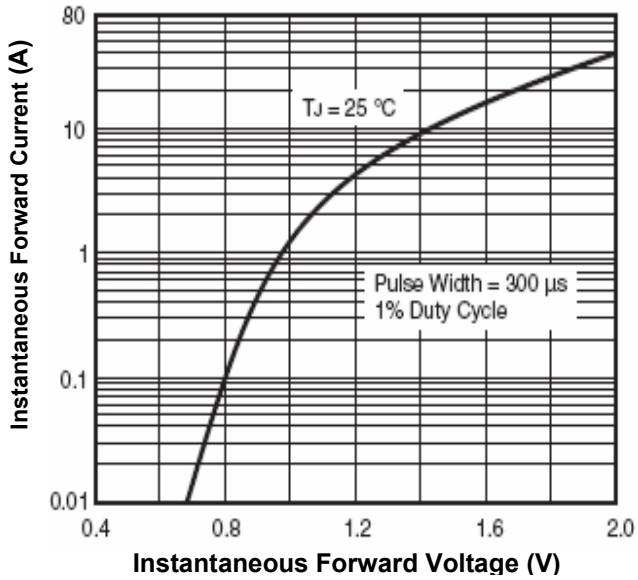


Fig.4- Typical Reverse Characteristics

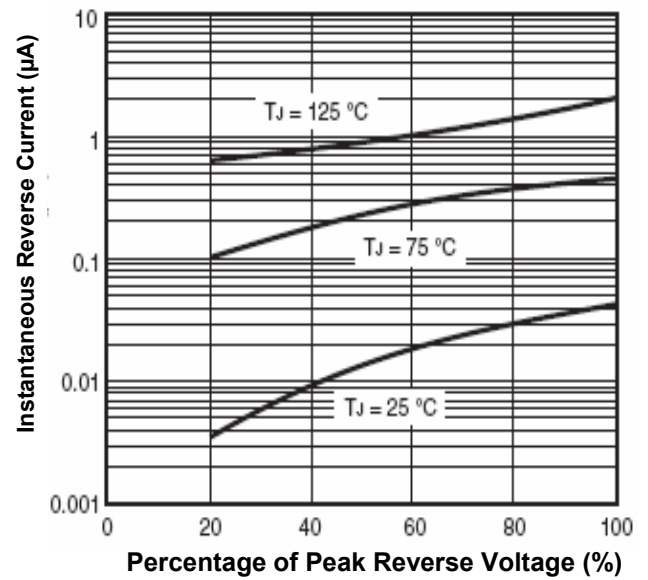
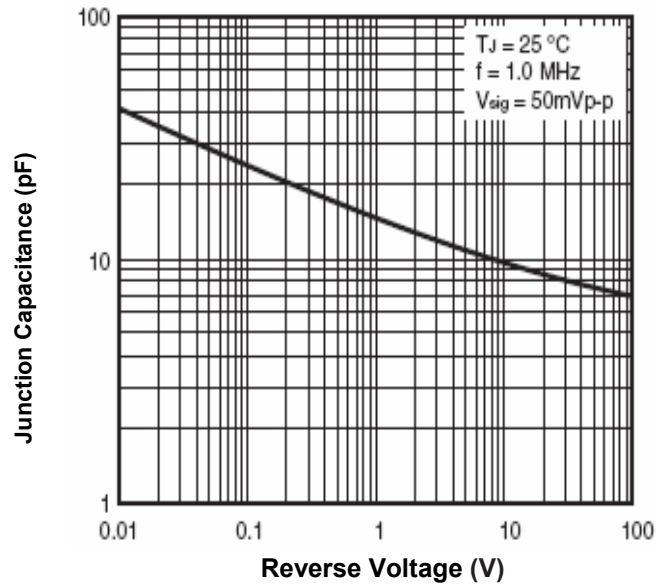


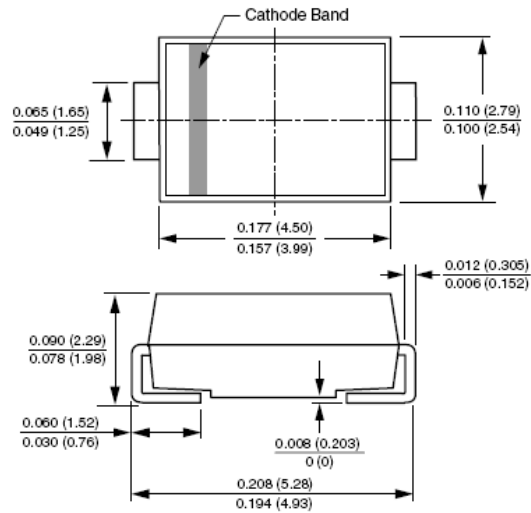
Fig.5- Junction Capacitance



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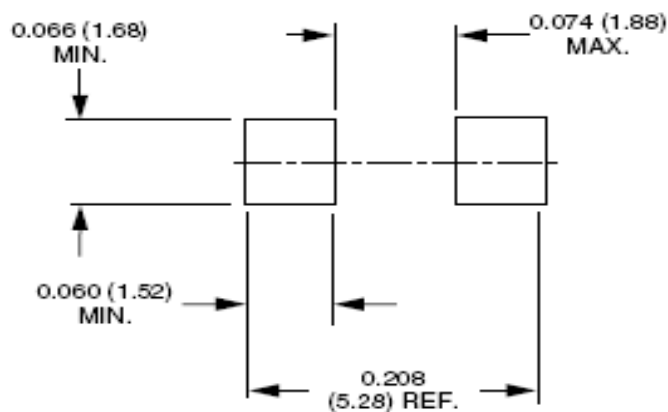
S1A - S1M

Dimensions in inch (mm)



**DO-214AC
(SMA)**

Mounting Pad Layout in inch (mm)



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S1A - S1M

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