

# Surface Mount Rectifier



## Features:

- Low Profile Package
- For Surface Mounted Applications
- High Current Capability
- Built-In Strain Relief, Ideal for Automated Placement
- High Temperature Soldering : 260°C/10 seconds at Terminals

## Mechanical Data

- Case : JEDEC DO-214AA molded plastic over passivated chip
- Terminals : Solder Plated, solderable per MIL-STD- 750, Method 2026
- Polarity : Colour band denotes cathode end
- Weight : 0.003oz, 0.093g

## Maximum Ratings and Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified

Characteristic	Symbol	S2G-13-F	S2M-13-F	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	400	1,000	V
Maximum RMS voltage	$V_{RMS}$	280	700	V
Maximum DC blocking voltage	$V_{DC}$	400	1,000	V
Maximum average forward rectified current at $T_L=100^{\circ}C$	$I_{F(AV)}$	2		A
Peak forward surge current @ $T_L = 110^{\circ}C$ 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50		A
Maximum instantaneous forward voltage at 2A	$V_F$	1.15		V
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=125^{\circ}C$	$I_R$	5 125		$\mu A$
Typical junction capacitance (Note 1)	$C_J$	30		p F
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	53 16		$^{\circ}C/W$
Operating junction and storage temperature range	$T_{JTS}, T_G$	-55 to +150		$^{\circ}C$

### Note:

(1) Measured at 1MHz and applied reverse voltage of 4V

(2) Thermal resistance from junction to ambient and junction to lead PCB mounted on 0.27" x 0.27" (7 x 7mm<sup>2</sup>) copper pad areas

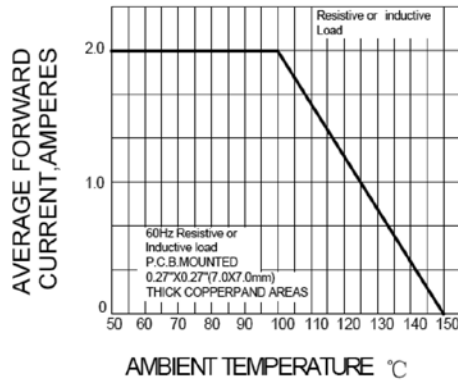
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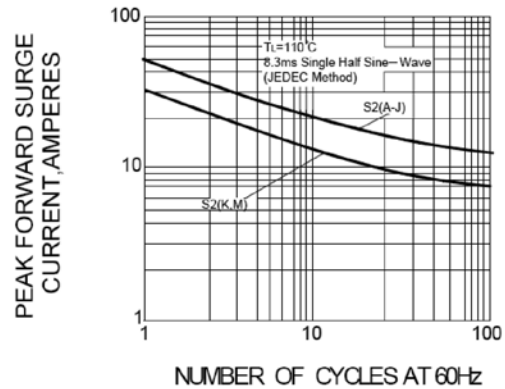
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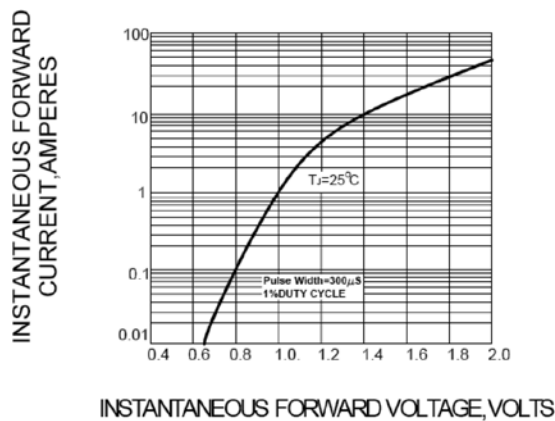
**FIG.1 – FORWARD DERATING CURVE**



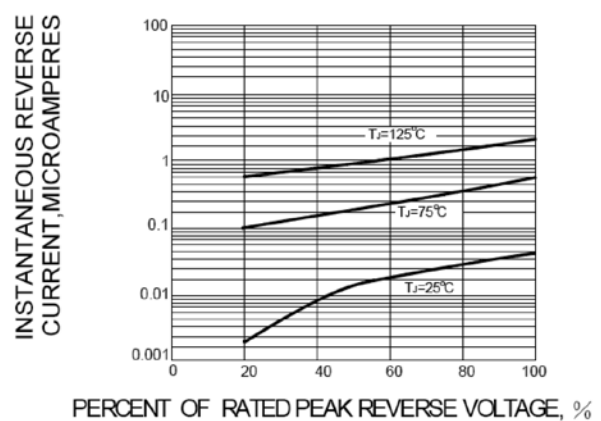
**FIG.2 PEAK FORWARD SURGE CURRENT**



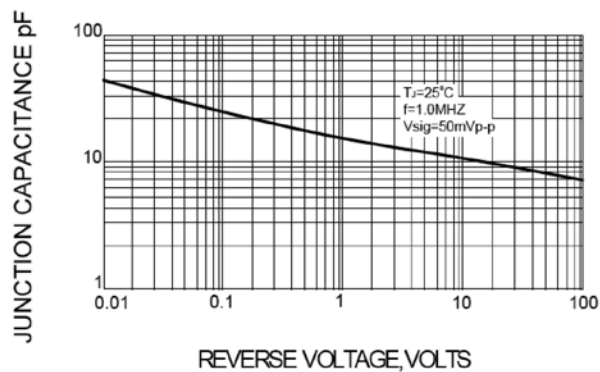
**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



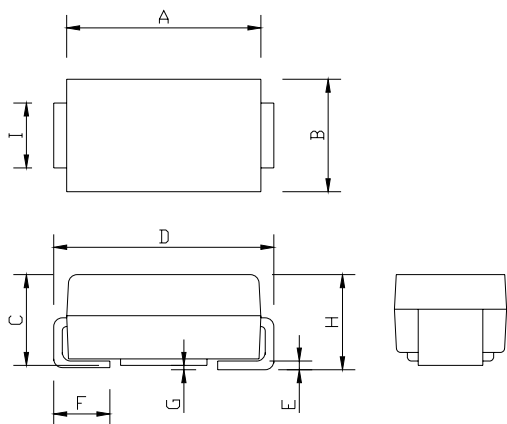
**FIG.5-TYPICAL JUNCTION CAPACITANCE**



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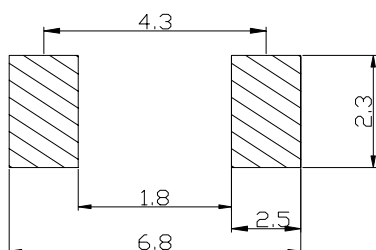
## Package Outline Dimensions



DO-214AA(SMB)		
Dim.	Min.	Max.
A	4.3	4.7
B	3.3	3.7
C	2	2.3
D	5.05	5.55
E	0.2 Typ.	
F	0.95	1.55
G	0.2 Max.	
H	2.1	2.5
I	1.85	2.15

Dimensions : Millimetres

## Soldering Footprint



Dimensions : Millimetres

## Package Information

Device	Package	Shipping
S2G-13-F S2M-13-F	DO-214AA(SMB)	3,000 / Tape & Reel

## Part Number Table

Description	Part Number
Surface Mount Rectifier	S2G-13-F
	S2M-13-F

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