

## Surface Mount General Purpose Silicon Rectifiers

**Reverse Voltage - 50 to 1000 V**

**Forward Current - 1 A**


### Features

- ♦For surface mounted applications
- ♦Low profile package
- ♦Glass Passivated Chip Junction
- ♦Ideal for automated placement
- ♦Lead free in comply with EU RoHS 2011/65/EU directives

### Mechanical Data

- ♦Case: DO-214AC/SMA
- ♦Terminals: Solderable per MIL-STD-750, Method 2026
- ♦Approx. Weight: 0.07g / 0.002oz

### Pinning

1.Cathode	2.Anode
	
DO-214AC/SMA	

### Marking Code

GS1A	YFW M1
GS1B	YFW M2
GS1D	YFW M3
GS1G	YFW M4
GS1J	YFW M5
GS1K	YFW M6
GS1M	YFW M7

### Maximum Ratings And Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

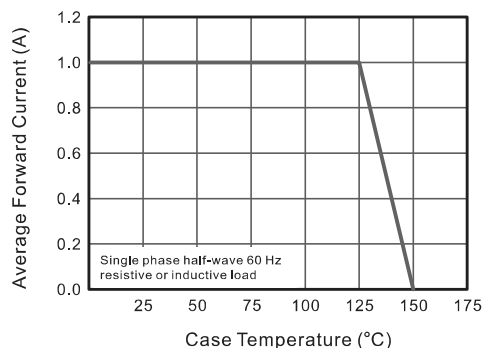
Parameter	Symbols	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 125\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage at 1 A	$V_F$	1.1							V
Maximum DC Reverse Current $T_a = 25\text{ }^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^{\circ}\text{C}$	$I_R$	5 50							$\mu\text{A}$
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	15							pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	75							$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150							$^{\circ}\text{C}$

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

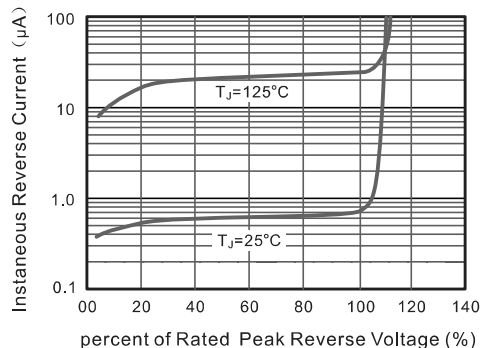
(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

**Ratings And Characteristic Curves**

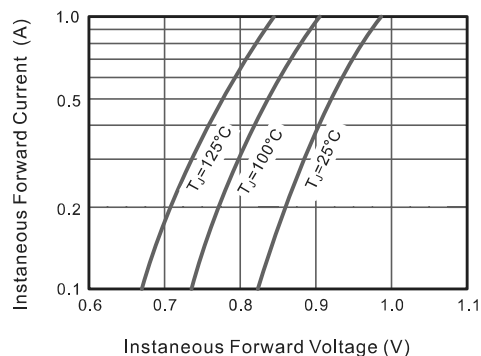
**Fig.1 Forward Current Derating Curve**



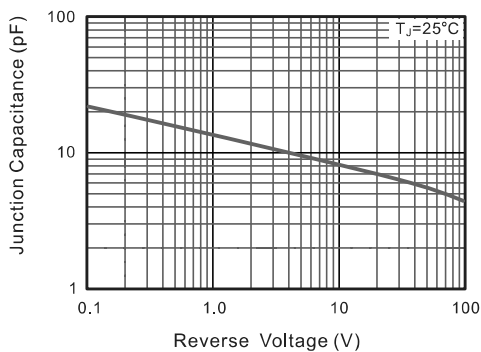
**Fig.2 Typical Reverse Characteristics**



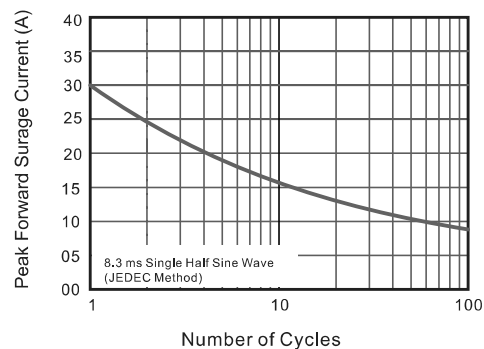
**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



## Marking Diagram



## Ordering information

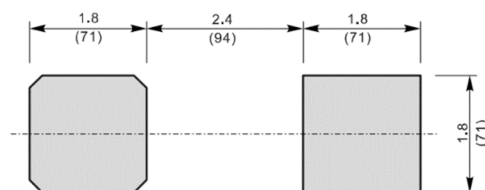
Package	Packing Description	Packing Quantity
DO-214AC SMA	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Cartron

## Package Dimensions

### DO-214AC SMA

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.9	2.45	75	96
D	4.0	4.5	157	181
E	2.5	2.8	100	110
H <sub>E</sub>	4.7	5.2	185	205
c	0.15	0.31	6	12
e	1.3	1.8	51	71
g	0.9	1.5	35	59
b	0.05	0.2	2	7.9
a	0.3		12	

### The recommended mounting pad size



Unit :  $\frac{\text{mm}}{(\text{mil})}$

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