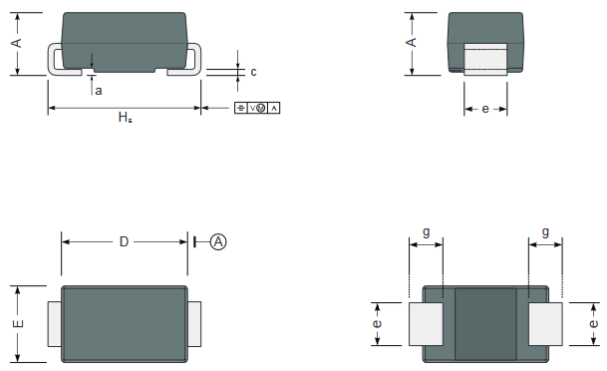
SMD Rectifier Diode

Primary characteristics		
Parameter	**Value**	**Unit**
Maximum Repetitive Peak Reverse Voltage	50 ~ 1000	V
Maximum Average Forward Rectified Current	1.0	A

Features

- **SMA (DO-214AC)** case for easy automatic insertion.
- Pb-free and **RoHS** compliant
- Plastic material used carries UL Classification 94V-0
- Low forward voltage drop
- Low power loss
- Built-in strain relief

Case dimensions



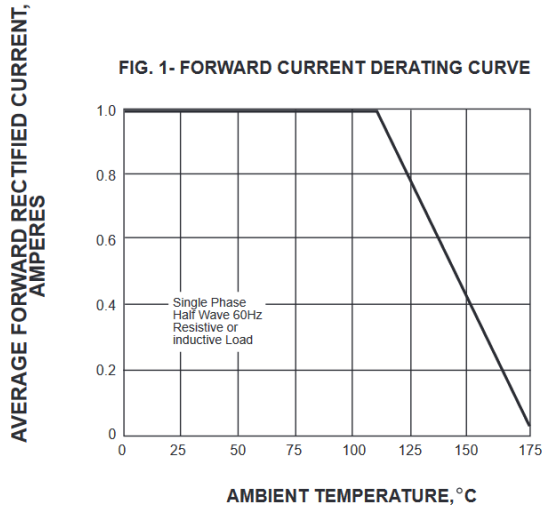
SMA (DO-214AC)

Unit	A	D	E	H_E	c	e	g	a
mm	2.05 ±0.15	4.25 ±0.25	2.5 ±0.2	4.95 ±0.25	0.23 ±0.08	1.45 ±0.15	1.2 ±0.3	0.3

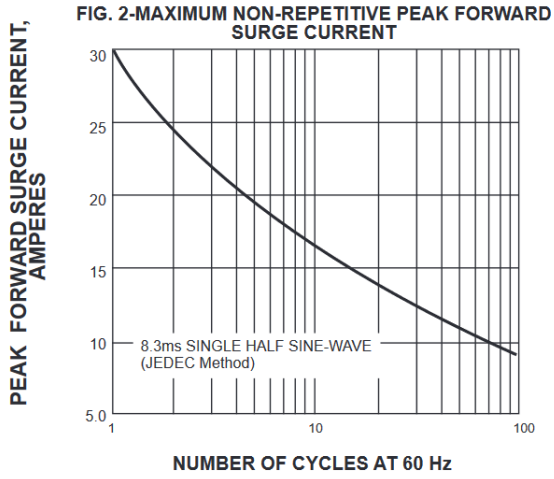
Absolute maximum ratings and general electrical characteristics (T_a = 25°C)

Parameter		Symbol	Value							Unit
			GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	
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		$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}	30							A
Maximum instantaneous forward voltage @1.0A		V_{FM}	1.1							V
Maximum reverse current at rated DC blocking voltage	T_a=25°C	I_{RM}	5.0							μA
	T_a=125°C		200							μA
Maximum reverse recovery time I_F=0.5A, I_R=1.0A, I_{rr}=0.25A		T_{rr}	2.5							μs
Typical junction capacitance V_R=4.0V, f=1.0MHz		C_j	15							pF
Typical thermal resistance Mounted on PCB with 8.0mm² land area		$R_{\theta JL}$	30							°C/W
Operating junction and storage temperature range		T_j, T_{STG}	-65 ~ 175							°C

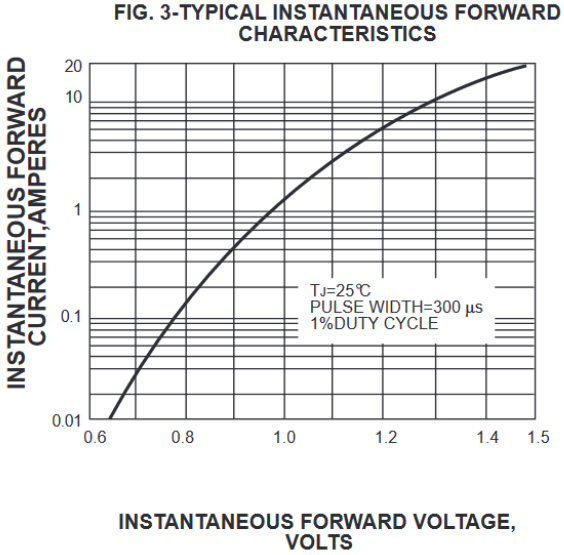
Forward current derating curve



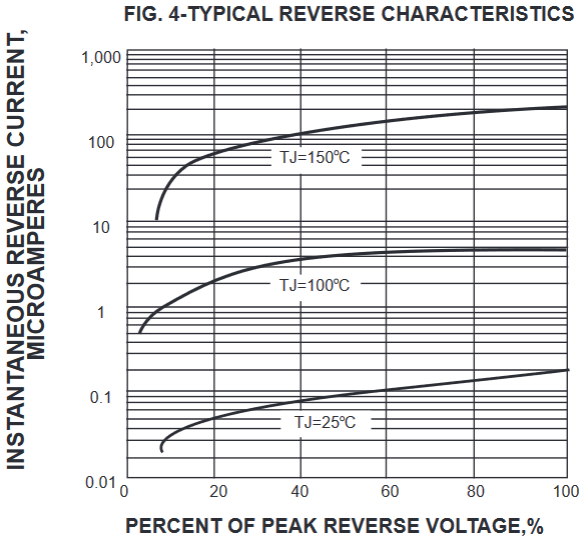
Maximum non-repetitive forward surge current



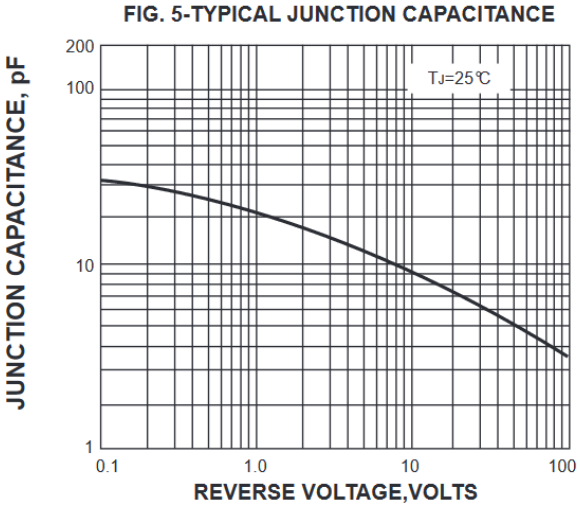
Typical instantaneous forward characteristics



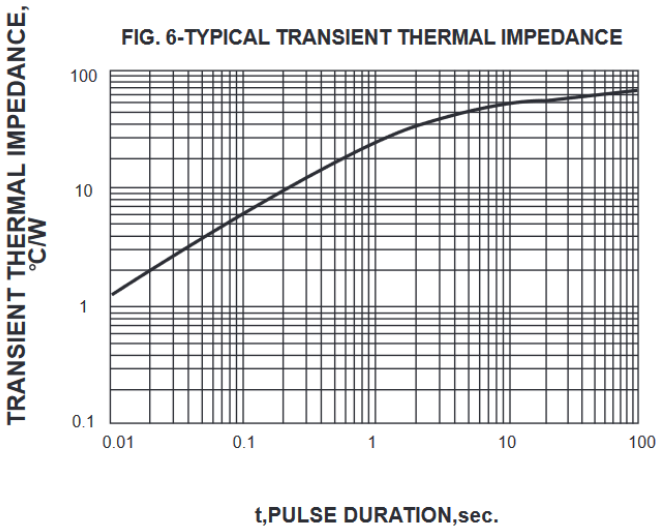
Typical reverse cahracteristics

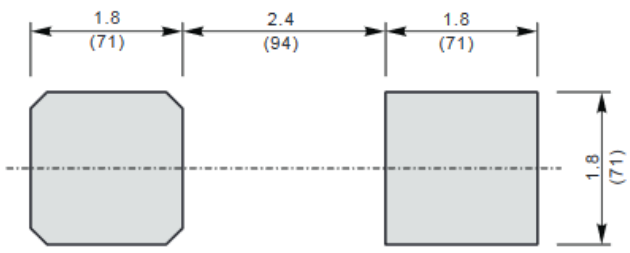


Typical junction capacitance



Typical transient thermal impedance



Suggested soldering pad layout

SMA (DO-214AC)

Ordering information			
Part Number	**Package**	**Shipping Quantity**	**Dimensions**
GS1A ~ GS1M	SMA (DO-214AC)	**2000 pcs / reel**	---

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