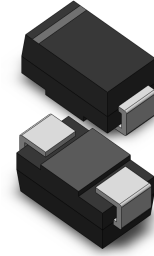


**VOLTAGE RANGE: 90 - 100V**  
**CURRENT: 1.0 A**

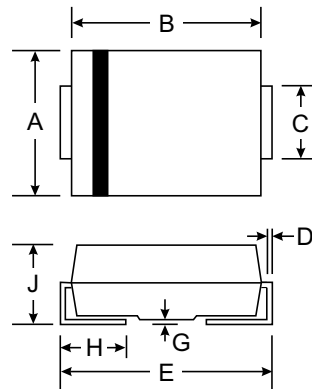
### Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- Low forward voltage drop
- Low leakage current
- High surge capability



### Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)



SMA(DO-214AC)		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

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

Characteristic	Symbol	SS1H9	SS1H10	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	90	100	V
Working peak reverse voltage	$V_{RWM}$	90	100	V
Maximum DC blocking voltage	$V_{DC}$	90	100	V
Maximum average forward rectified current (Fig. 1)	$I_{F(AV)}$	1.0		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	50		A
Peak repetitive reverse surge current at $t_p = 2.0 \mu s$ , 1 kHz	$I_{RRM}$	1.0		A
Storage temperature range	$T_{STG}$	- 65 to + 175		°C
Maximum operating temperature	$T_J$	175		°C

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)						
PARAMETER	TEST CONDITIONS		SYMBOL	SS1H9	SS1H10	UNIT
Maximum instantaneous forward voltage <sup>(1)</sup>	$I_F = 1.0\text{ A}$	$T_J = 25\text{ }^\circ\text{C}$	$V_F$	0.77	V	
	$I_F = 1.0\text{ A}$	$T_J = 125\text{ }^\circ\text{C}$		0.62		
	$I_F = 2.0\text{ A}$	$T_J = 25\text{ }^\circ\text{C}$		0.86		
	$I_F = 2.0\text{ A}$	$T_J = 125\text{ }^\circ\text{C}$		0.70		
Maximum reverse current at rated $V_R$ <sup>(2)</sup>			$I_R$	1.0	$\mu\text{A}$ mA	
				0.5		

**Notes:**

(1) Pulse test: 300  $\mu\text{s}$  pulse width, 1 % duty cycle

(2) Pulse test: Pulse width  $\leq 40\text{ ms}$

<b>THERMAL CHARACTERISTICS</b> ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)				
PARAMETER	SYMBOL	SS1H9	SS1H10	UNIT
Maximum thermal resistance <sup>(1)</sup>	$R_{\theta JA}$	88		$^\circ\text{C/W}$
	$R_{\theta JL}$	30		

**Note:**

(1) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0 mm) copper pad areas

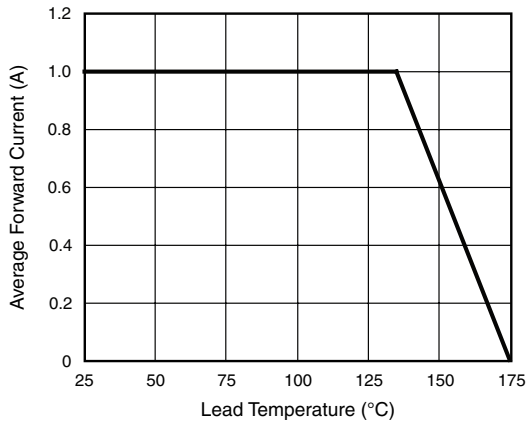


Figure 1. Forward Current Derating Curve

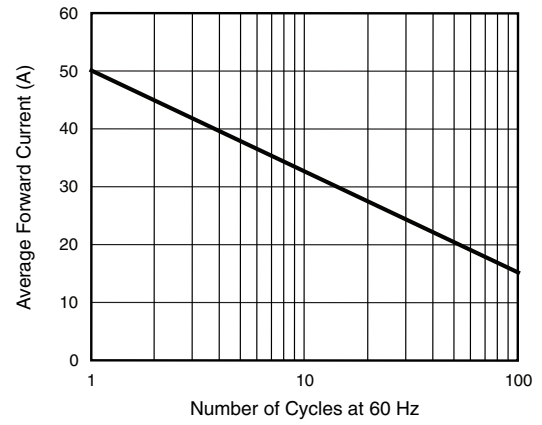


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

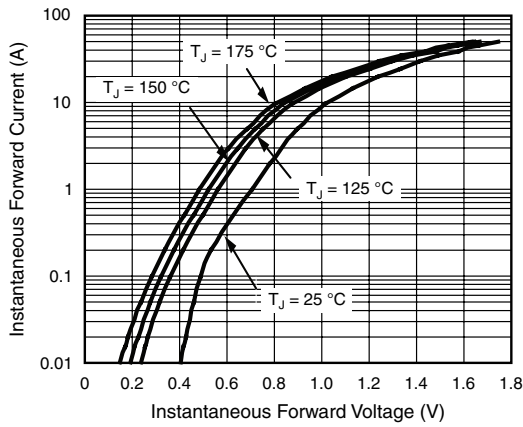


Figure 3. Typical Instantaneous Forward Characteristics

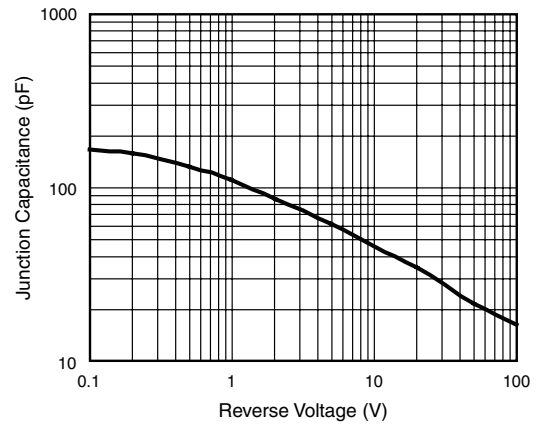


Figure 5. Typical Junction Capacitance

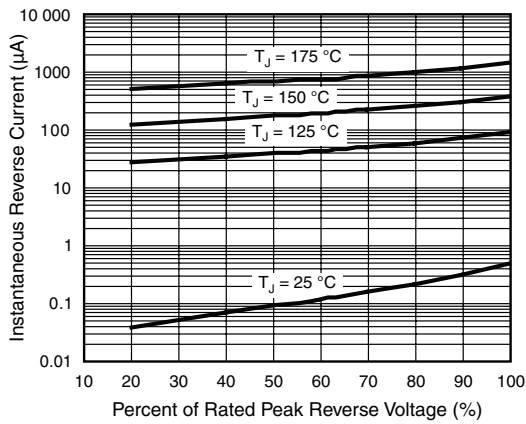


Figure 4. Typical Reverse Characteristics

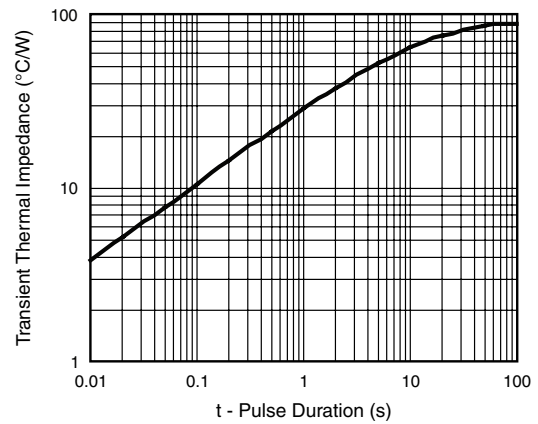


Figure 6. Typical Transient Thermal