

#### **DO-214AC / SMA**

### Voltage 40 V to 150 V

### Current 2.0 A

#### **FEATURES**

- Low profile package
- Ideal for automated placement
- Low power losses, high efficiency
- High surge current capability
- Guarding for overvoltage protection
- Low forward voltage drop
- Solder dip 260°C, 10s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C









#### **MECHANICAL DATA**

- Case: DO-214AC (SMA). Epoxy meets UL 94V-0 flammability rating.
- Polarity: Color band denotes cathode end.
- Terminals: Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test. HE3 suffix for high reliability grade (AEC Q101 qualified), meets JESD 201 class 2 whisker test.

#### **TYPICAL APPLICATIONS**

Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.

### Maximum Ratings and Electrical Characteristics at 25 °C

		SK24A	SK26A	SK210A	SK215A
Marking code		IL	II	IY	IZ
V <sub>RRM</sub>	Maximum Recurrent Peak Reverse Voltage (V)	40 60 100		100	150
V <sub>RMS</sub>	Maximum RMS Voltage (V)	28	42	70	105
$V_{DC}$	Maximum DC Blocking Voltage (V)	40	60	100	150
I <sub>F(AV)</sub>	Maximum Average Forward Rectified Current at Tc (See graphic)	2.0 A			
I <sub>FSM</sub>	Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	50 A			
Tj	Operating Temperature Range	-55°C to +125°C -55°C to +150°C			
T <sub>stg</sub>	Storage Temperature Range	-55°C to +150°C			

## Electrical Characteristics at Tamb = 25 °C

V <sub>F</sub>	Maximum Instantaneous Forward Voltage @ 2.0 A (Note 1)	0.5 V	0.7 V	0.85 V	0.95 V
I <sub>R</sub>	Maximum DC Reverse Current $T_j = 25 ^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_j = 100 ^{\circ}\text{C}$ (Note 3)	0.5 mA		0.1 mA	
		10 mA	5.0 mA	2.0	mA
C <sub>j</sub>	Typical Junction Capacitance (Note 4)	190 pF	150 pF	120 pF	
R <sub>thj-a</sub>	Typical Thermal Resistance (Note 2)	88 °C/W			

Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle

2. Thermal Resistance from Junction to Case per diode

3. Pulse test: Pulse width ≤ 40ms

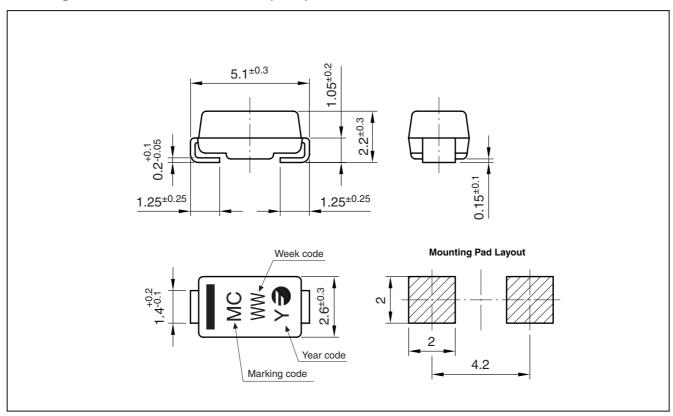
4. Measured at 1.0MHz and Applies Reverse Voltage of 4.0V. D.C.



# **Ordering information**

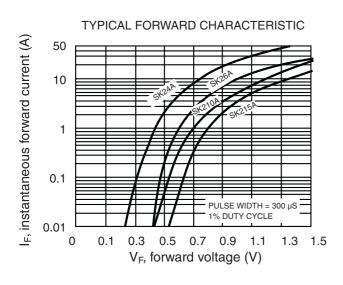
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
SK26A TRTB	TRTB	13" diameter tape and reel	7,500	0.060
SK26A TRTS	TRTS	7" diameter tape and reel	1,800	0.060
SK26A HE3 TRTB	TRTB	13" diameter tape and reel	7,500	0.060

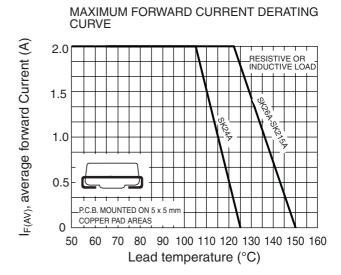
# Package Outline Dimensions: (mm) DO-214AC / SMA

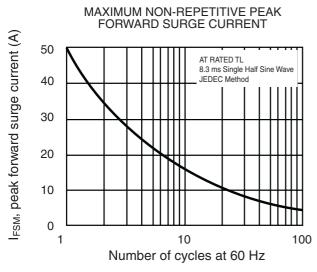


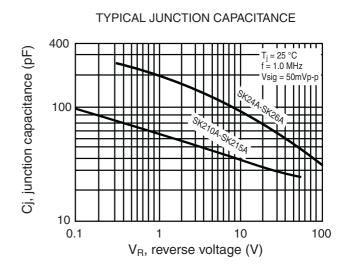


# Ratings and Characteristics (Ta 25 °C unless otherwise noted)





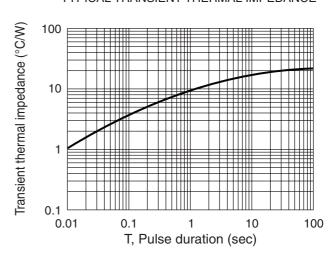






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TYPICAL TRANSIENT THERMAL IMPEDANCE





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