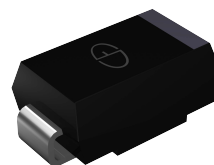


Features

- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Meets environmental standard MIL-S-19500D
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 275 °C, 10s
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC



Package: DO-214AC (SMA))

Applications

- General purpose rectification
- Lighting
- Power supplies
- Inverters and converters
- Freewheeling diodes for consumer, automotive and telecommunication



Mechanical Data

Case: DO-214AC, molded epoxy body-Epoxy meets UL 94V-0 flammability rating

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22B-106

Polarity: Laser Band Denotes Cathode Band

Maximum Ratings (T_A = 25°C unless otherwise noted)

Parameter	Symbol	SK1C0A	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	200	V
Maximum RMS Voltage	V _{RMS}	140	V
Maximum DC Blocking Voltage	V _{DC}	200	V
Maximum Average Forward Rectified Current at TL (See Fig.1)	I _{F(AV)}	1	A
Peak Forward Surge Current 8.3 ms Single Half sine-wave Superimposed on Rated Load	I _{FSM}	30	A
Operating Junction Temperature Range	T _J	- 55 to + 150	°C
Storage Temperature Range	T _{stg}	- 55 to + 150	°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	SK1C0A	Unit
Maximum Instantaneous Forward Voltage	I _F =0.5A I _F =1 A	V _F	0.8 0.85	V
Maximum DC Reverse Current @ Rated DC Blocking Voltage	T _A =25°C	I _R	100	uA
	T _A =125°C		500	
Typical Junction Capacitance	4.0 V, 1 MHz	C _J	35	pF

Thermal Characteristics

Parameter	Symbol	SK1C0A	Unit
Typical Thermal Resistance	R _{θJA} (1)	80	°C/W
	R _{θJT} (2)	20	

Notes: (1) Thermal resistance from junction to ambient, 0.197x 0.197 inch (5.0x5.0mm) copper pads to each terminal

(2) Thermal resistance from junction to terminal, 0.197x0.197 inch (5.0x5.0mm) copper pads to each terminal

Ratings and Characteristics Curves

(T_A = 25°C unless otherwise noted)

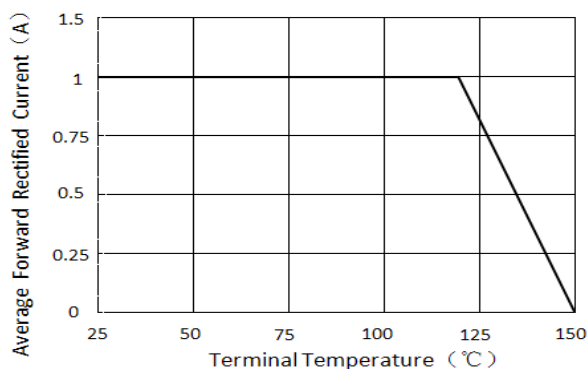


Figure 1. Forward Current Derating Curve

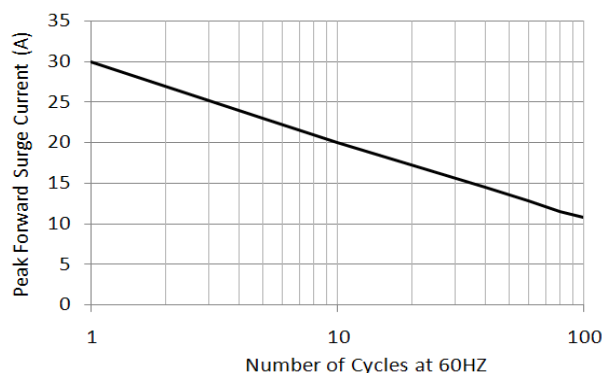


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

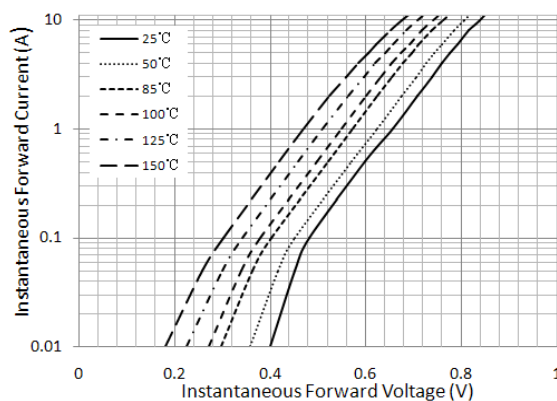


Figure 3. Typical Instantaneous Forward Characteristics

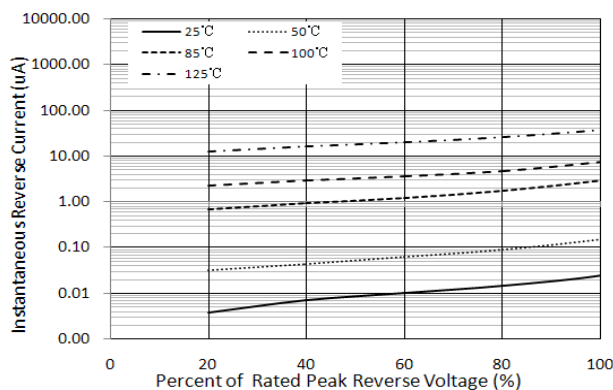


Figure 4. Typical Reverse Characteristics

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

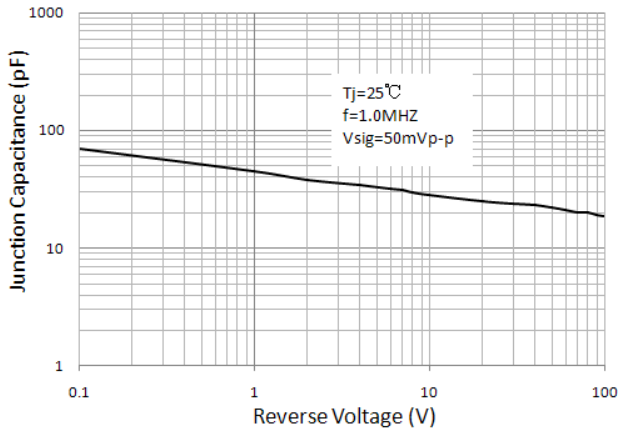
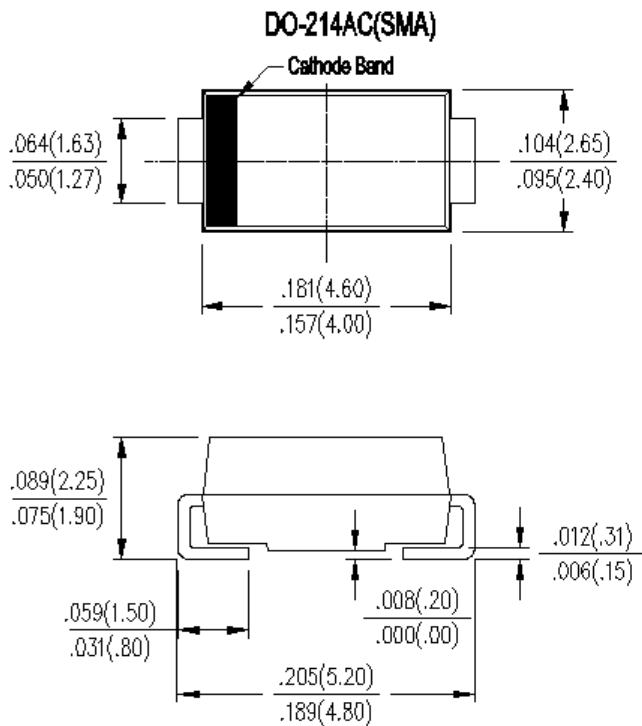


Figure 5. Typical Junction Capacitance

Package Outline Dimensions

in inches (millimeters)



MOUNTING PAD LAYOUT

