



SK5C0C Schottky Barrier Rectifier

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



DO-214AB (SMC)

APPLICATIONS

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



MECHANICAL DATA

Case: DO-214AB, 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 (TA = 25 °C unless otherwise noted)			
PARAMETER	SYMBOL	SK5C0C	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)}	5	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	120	A
Operating junction temperature range	T _J	- 55 to + 150	°C
Storage temperature range	T _{stg}	- 55 to + 150	°C



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ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)				
PARAMETER	TEST CONDITIONS	SYMBOL	SK5C0C	UNIT
Maximum instantaneous forward voltage	I _F =0.5A	V _F	0.70	V
	I _F =1A		0.75	
	I _F =3A		0.80	
	I _F =5A		0.85	
Maximum DC reverse current at 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	96	pF

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)			
PARAMETER	SYMBOL	SK5C0C	UNIT
Typical thermal resistance	R _{θJA} (1)	85	°C/W
	R _{θJT} (2)	25	

Notes: (1) Thermal resistance from junction to ambient, 0.315×0.315" (8.0×8.0mm) copper pads to each terminal
 (2) Thermal resistance from junction to terminal, 0.315×0.315" (8.0×8.0mm) copper pads to each terminal

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

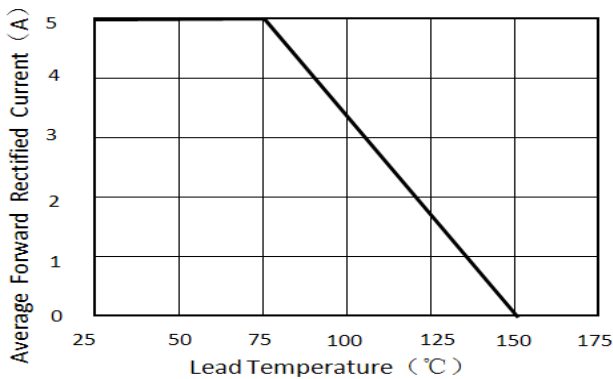


Figure 1. Forward Current Derating Curve

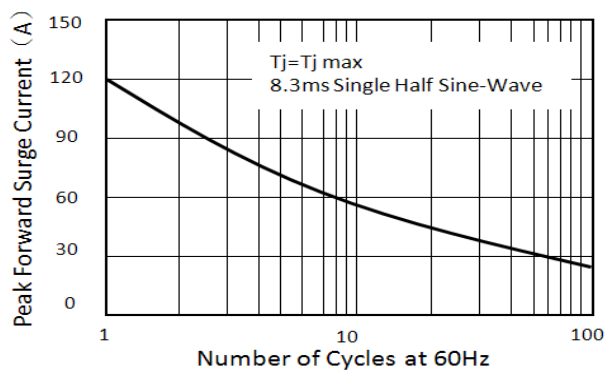


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

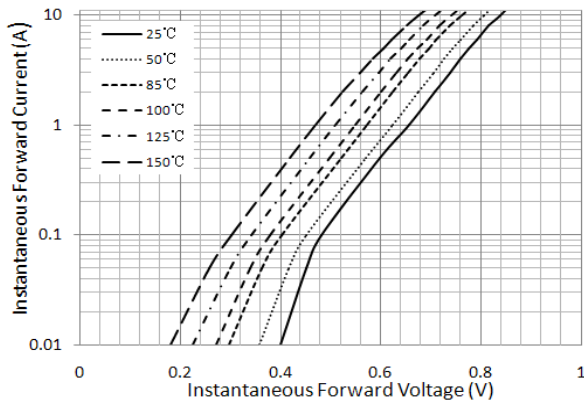


Figure 3. Typical Instantaneous Forward Characteristics

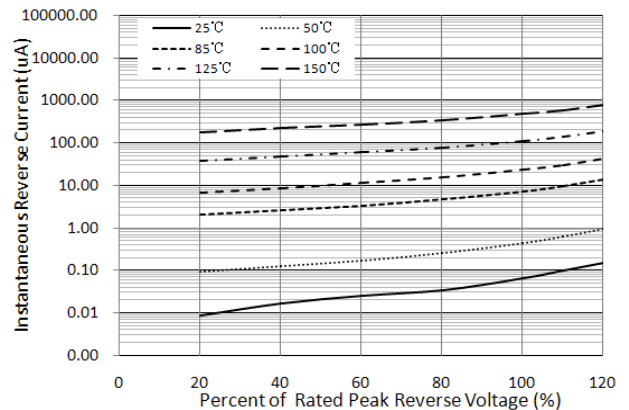


Figure 4. Typical Reverse Characteristics

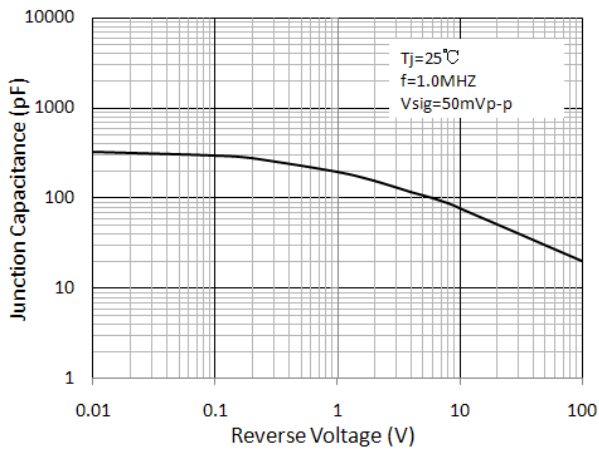


Figure 5. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

