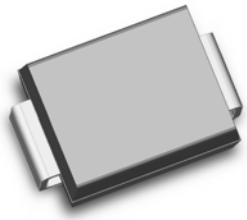
GOOD-ARK

SK5C0B

Surface Mount Schottky Barrier Rectifier



DO-214AA（SMB）

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, 10 s
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

TYPICAL APPLICATIONS

For use in general purpose rectification of lighting, power supplies, inverters, converters and freewheeling diodes for consumer, automotive and telecommunication.

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	5 A
V_{RRM}	200 V
I_{FSM}	120A
V_F	0.85V
T_J max.	150 °C

MECHANICAL DATA

Case: DO-214AA, 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**	**SK5C0B**	**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	Tstg	- 55 to + 150	°C

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ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)				
PARAMETER	**TEST CONDITIONS**	**SYMBOL**	**SK5C0B**	UNIT
Maximum instantaneous forward voltage	IF=0.5A IF=1 A IF=3 A IF=5A	V_F	0.7 0.75 0.8 0.85	V
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I_R	100	uA
	TA=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**	**SK5C0B**	**UNIT**
Typical thermal resistance	$R_{\theta JA}$ (1)	85	°C/W
	$R_{\theta JT}$ (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)

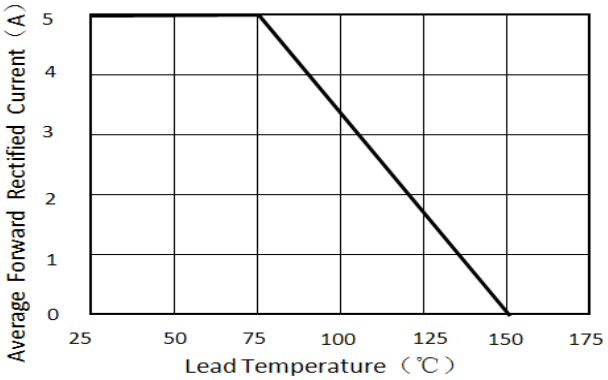

Figure 1. Forward Current Derating Curve

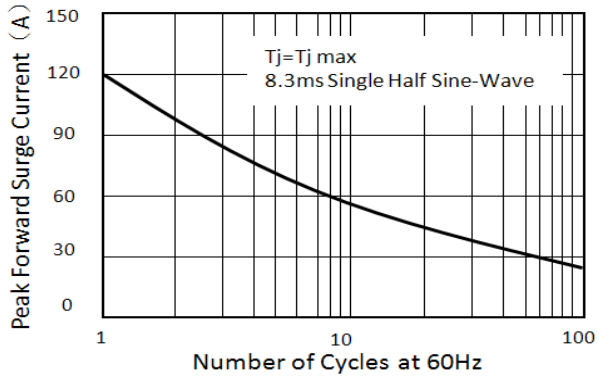

Figure 2.Maximum Non-repetitive Peak Forward Surge Current

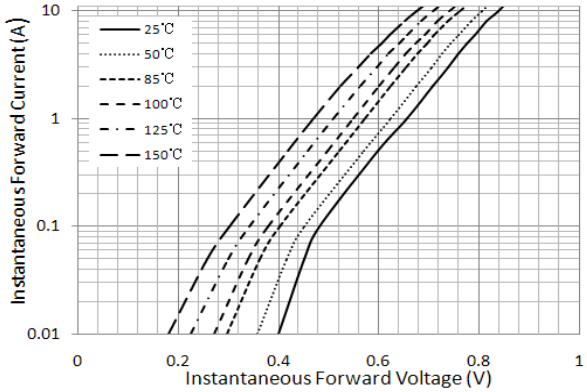

Figure 3. Typical Instantaneous Forward Characteristics

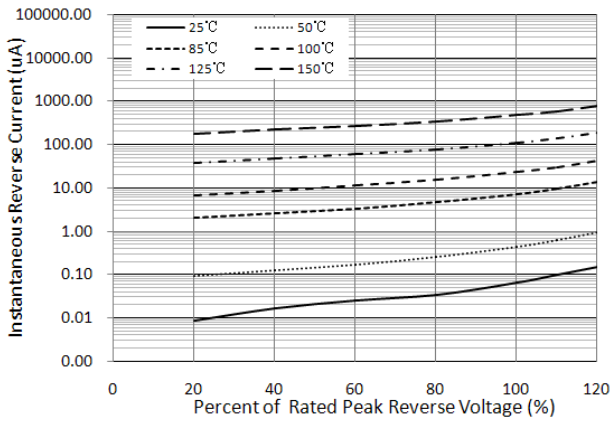

Figure 4. Typical Reverse Characteristics

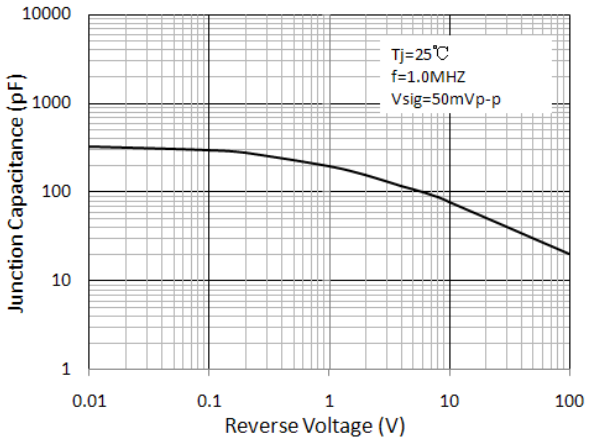

Figure 5. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)