GOOD-ARK

SK57B thru SK5BB

Surface Mount Schottky Barrier Rectifier

DO-214AA（SMB）

RoHS COMPLIANT

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 250 °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}	70V to 100 V
I_{FSM}	120A
V_F	0.79V
T_J max.	150 °C

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	SK57B	SK58B	SK59B	SK5BB	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	70	80	90	100	V
Maximum RMS voltage	V_{RMS}	49	56	63	70	V
Maximum DC blocking voltage	V_{DC}	70	80	90	100	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 + 125				°C
Storage temperature range	Tstg	- 55 to + 125				°C

ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)							
PARAMETER	**TEST CONDITIONS**	**SYMBOL**	**SK57B**	**SK58B**	**SK59B**	**SK5BB**	UNIT
Maximum instantaneous forward voltage	IF=5A	V_F	0.79				V
Maximum DC reverse current at rated DC blocking voltage	TJ=25℃	I_R	0.5				mA
	TJ=100℃		20				
Typical junction capacitance	4.0 V, 1 MHz	C_J	96				pF
Typical thermal resistance		$R_{\theta JA}$ (1)	85				°C/W
		$R_{\theta JT}$ (2)	25				

Notes: (1) Thermal resistance from junction to ambient, 0.3×0.3″（8.0×8.0mm）copper pads to each terminal

(2) Thermal resistance from junction to terminal, 0.3×0.3″（8.0×8.0mm）copper pads to each terminal

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

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

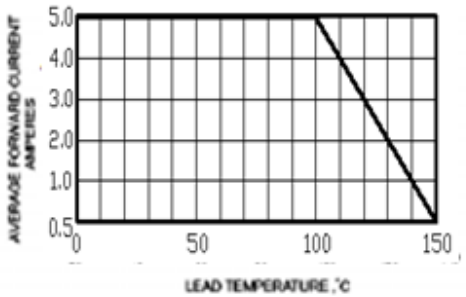


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

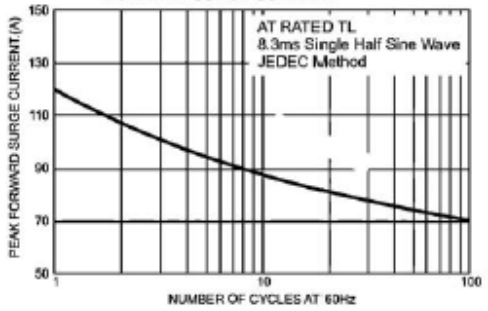


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

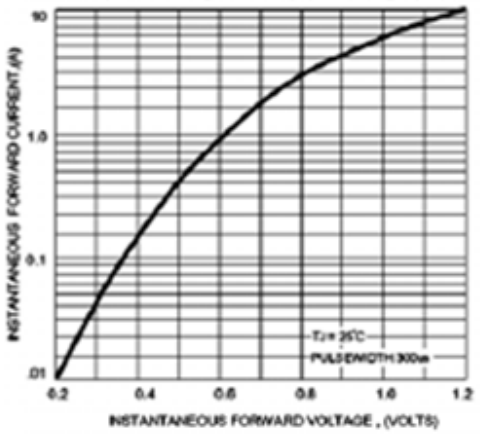


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

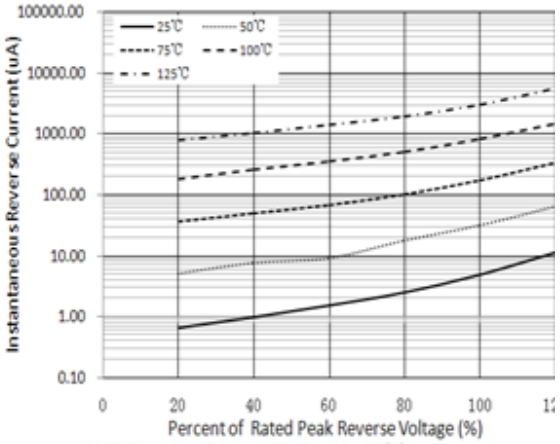


FIG. 5- TYPICAL JUNCTION CAPACITANCE

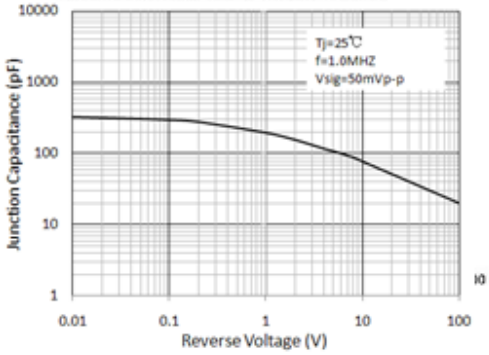
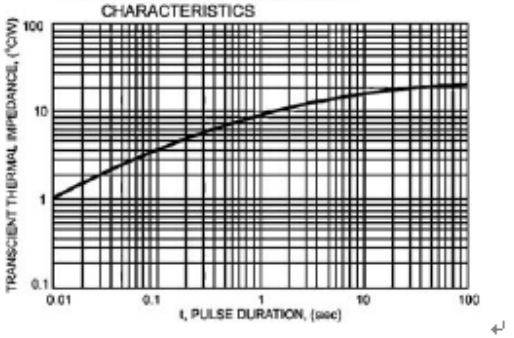


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)