

Surface Mount 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 250 °C, 10 s
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC



DO-214AA (SMB)

TYPICAL APPLICATIONS

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

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	3 A
V_{RRM}	70V to 100 V
I_{FSM}	100A
V_F	0.79V
$T_J \text{ max.}$	125 °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

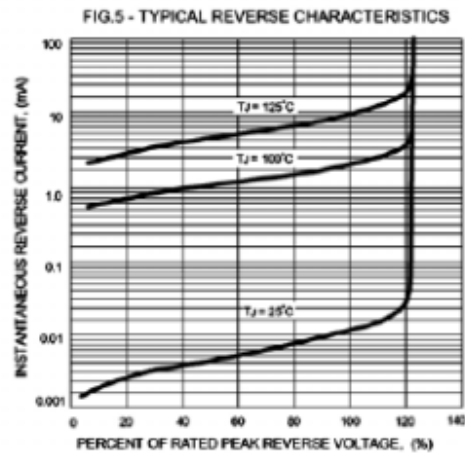
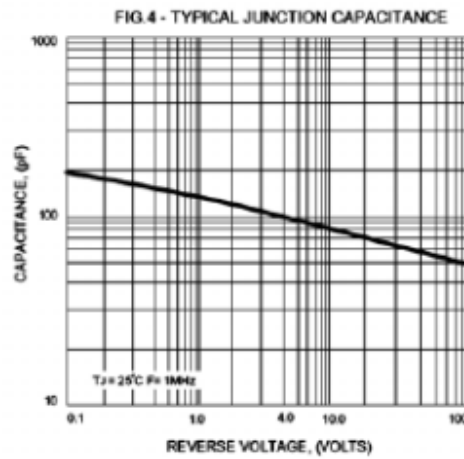
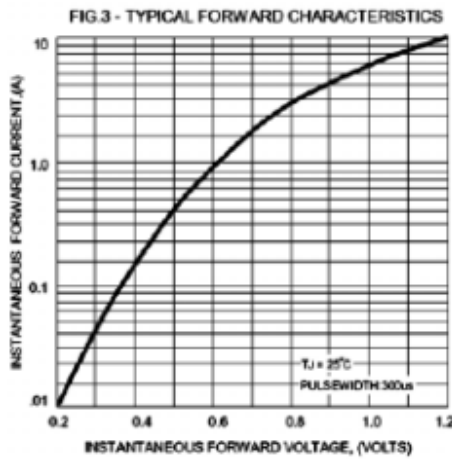
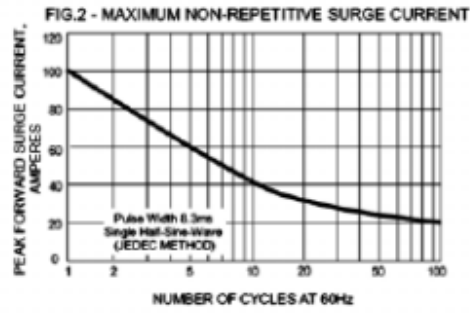
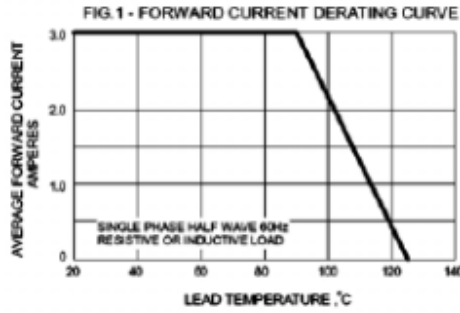
MAXIMUM RATINGS (TA = 25 °C unless otherwise noted)						
PARAMETER	SYMBOL	SK37B	SK38B	SK39B	SK3BB	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	70	80	90	100	V
Maximum RMS voltage	V_{RMS}	49	56	63	70	V
Maximum DC blocking voltage	V_{DC}	70	80	90	100	V
Maximum average forward rectified current 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}	100				A
Operating junction temperature range	T_J	- 55 to + 125				°C
Storage temperature range	T_{stg}	- 55 to + 125				°C

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)							
PARAMETER	TEST CONDITIONS	SYMBOL	SK37B	SK38B	SK39B	SK3BB	UNIT
Maximum instantaneous forward voltage	IF=3A	V _F	0.79				V
Maximum DC reverse current at rated DC blocking voltage	T _J =25°C	I _R	0.5				mA
	T _J =100°C		20				
Typical junction capacitance	4.0 V, 1 MHz	C _J	100				pF
Typical thermal resistance		R _{θJA} (1)	50				°C/W
		R _{θJT} (2)	10				

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





SK37B thru SK3BB

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

