



SYNSEMI SEMICONDUCTOR

SK37 thru SK3B

3.0 Amps. Surface Mount Schottky Barrier Rectifiers
Voltage Range 70 to 100 Volts Forward Current 3.0 Amperes

Features

- ◆ For surface mounted applications
- ◆ Metal-Semiconductor junction with guarding
- ◆ Epitaxial construction
- ◆ Very low forward voltage drop
- ◆ High current capability
- ◆ Plastic material has UL flammability classification 94V-0
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

Mechanical Data

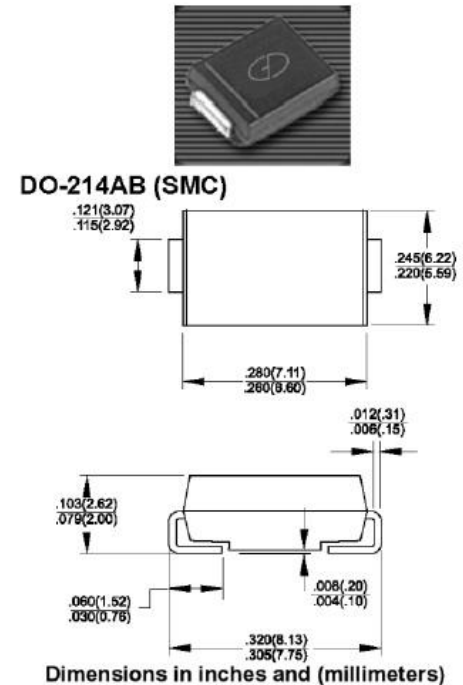
- ◆ Case : JEDEC DO-214AB(SMC) molded plastic
- ◆ Polarity : Color band denotes cathode
- ◆ Weight : 0.009 ounce, 0.25 gram

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Parameter	Symbols	SK37	SK38	SK39	SK3B	Units
Maximum repetitive peak reverse voltage	V_{RRM}	70	80	90	100	Volts
Maximum RMS voltage	V_{RMS}	49	56	63	70	Volts
Maximum DC blocking voltage	V_{DC}	70	80	90	100	Volts
Maximum average forward rectified current @ $T_L=90^\circ\text{C}$	$I_{(AV)}$	3.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100.0				Amps
Maximum forward voltage at 3.0A DC @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	V_F	0.79 0.69				Volts
Maximum DC reverse current at rated DC blocking voltage @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	I_R	0.5 20				mA
Typical junction capacitance (Note 1)	C_J	100				pF
Typical thermal resistance (Note 2)	$R_{\theta JL}$	10				$^\circ\text{C/W}$
Operating temperature range	T_J	-55 to +125				$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150				$^\circ\text{C}$

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal Resistance Junction to Lead.



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RATINGS AND CHARACTERISTIC CURVES

