

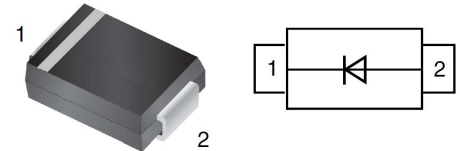
## Schottky Barrier Rectifier in DO-214AB/SMC

### Features

- Schottky barrier diodes
- Low forward voltage drop
- High Junction Temperature

### Mechanical Data

- **Case:** DO-214AB/SMC (plastic package).  
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**  
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:  
260 °C/10 sec. at terminals



### Applications

For use in low voltage, high frequency inverters, free wheeling, and polarity protection application

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	SK38	SK39	SK310	SK315	SK320	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	80	90	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	56	21	70	104	140	V
Maximum DC blocking voltage	$V_{DC}$	80	90	100	150	200	V
Maximum average forward rectified current	$I_{F(AV)}$	3.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	100					A
Operating junction and storage temperature range	$T_J, T_{STG}$	- 55 to + 150					°C

### Electrical Characteristics

( $T_A = 25\text{ °C}$  unless otherwise specified)

Parameter	Test Conditions	Symbol	SK38	SK39	SK310	SK315	SK320	Unit
Maximum instantaneous forward voltage	$I_F=3A, T_A=25\text{ °C}$	$V_F$	0.85			0.95		V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25\text{ °C}$	$I_R$	0.50					mA
	$T_A=125\text{ °C}$		20					
Typical junction capacitance	4.0 V, 1 MHz	$C_J$	250					pF

### Thermal Characteristics

Parameter	Symbol	SK38A	SK39A	SK310A	SK315A	SK320A	Unit
Typical thermal resistance <sup>(1)</sup>	$R_{\theta JA}$	77					°C/W
	$R_{\theta JC}$	40					
	$R_{\theta JI}$	18					

Note1: Thermal resistance from junction to lead, mounted on PCB with 5.0x5.0mm copper pads

**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

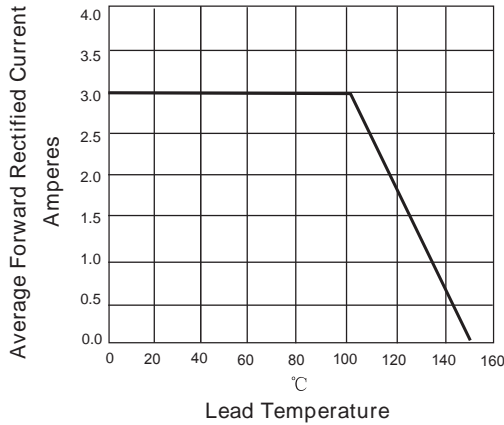


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

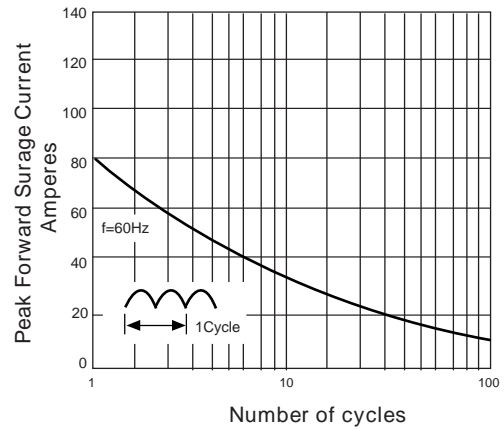


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

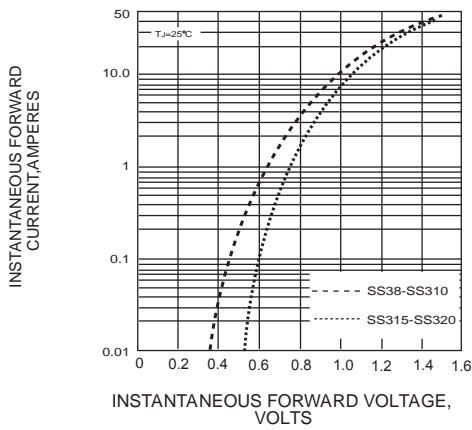
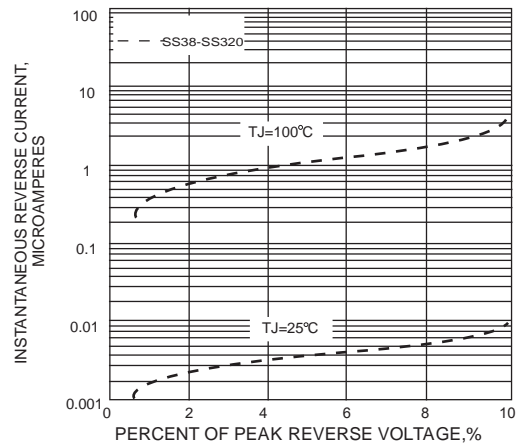
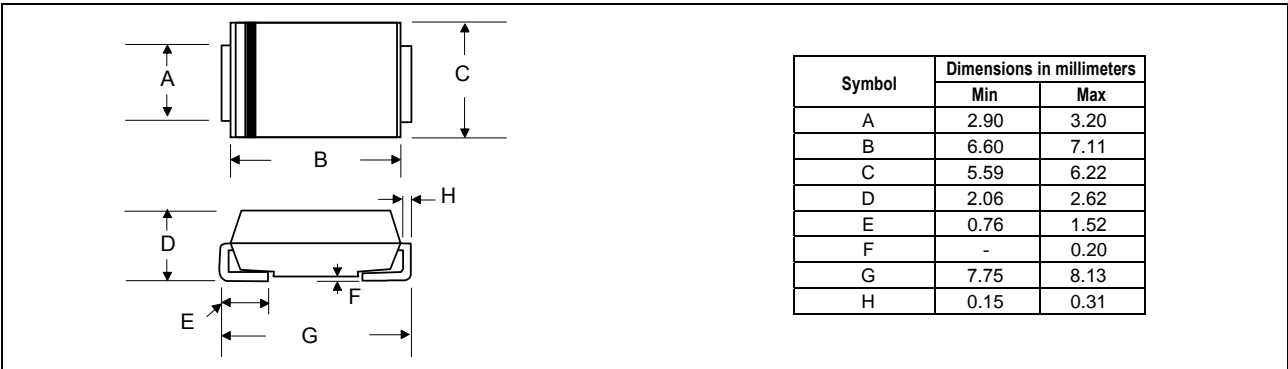


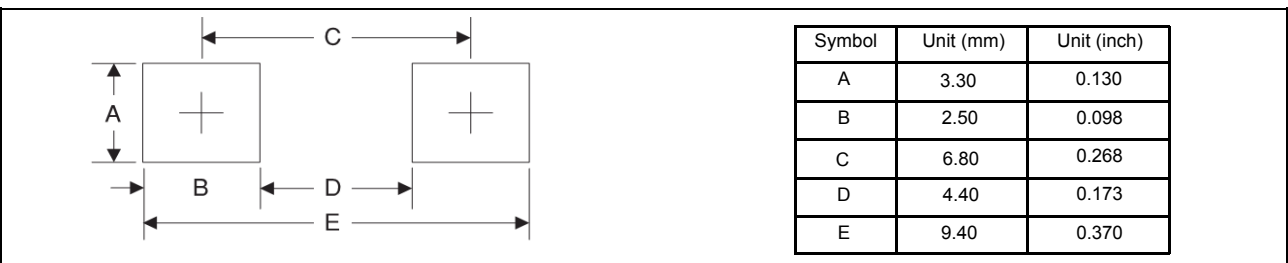
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



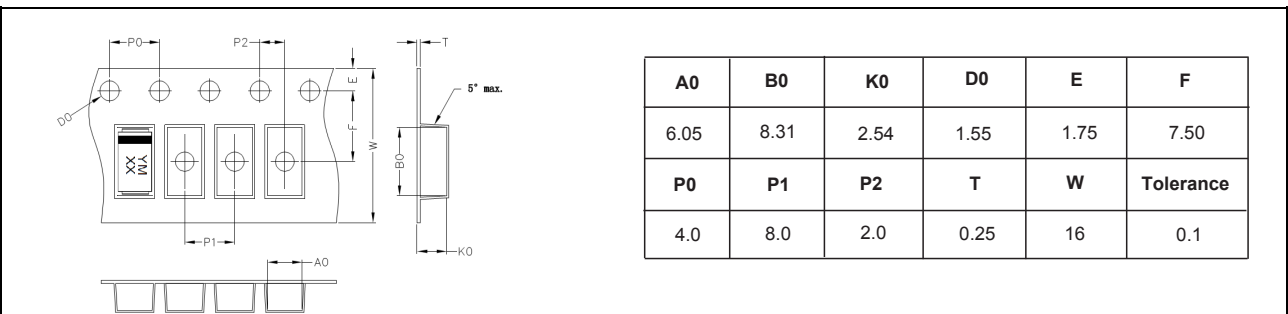
### Package Dimensions



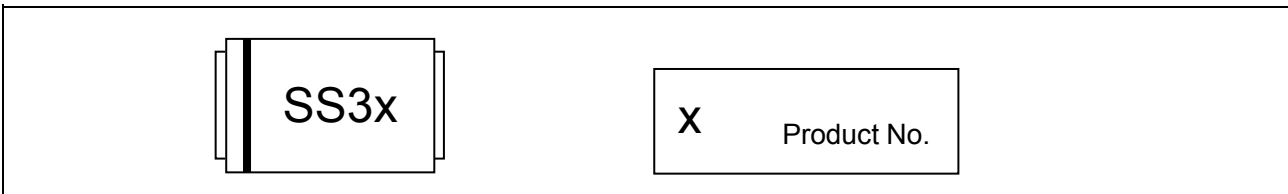
### PAD Dimensions



### Packing Information



### Marking



### Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
SK38 Thru SK320	DO-214AB/SMC	Tape and reel	3000pcs / reel	EIA STD RS-481

### Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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