

# SDB32W THRU SDB310W

## Surface Mount Schottky Barrier Rectifiers

Reverse Voltage - 20 to 100 V

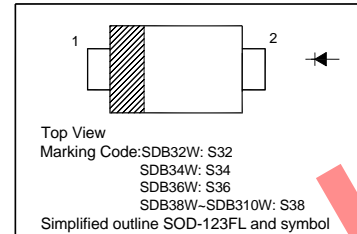
Forward Current - 3 A

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability

### PINNING

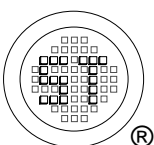
PIN	DESCRIPTION
1	Cathode
2	Anode



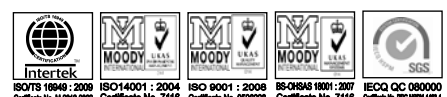
### Maximum Ratings and Electrical Characteristics

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

Parameter	Symbols	SDB32W	SDB34W	SDB36W	SDB38W	SDB310W	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	60	80	100	V
Maximum RMS Voltage	$V_{RMS}$	14	28	42	56	70	V
Maximum DC Blocking Voltage	$V_{DC}$	20	40	60	80	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3					A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	110					A
Maximum Instantaneous Forward Voltage at 3 A	$V_F$	0.52	0.55	0.65	0.85		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	$I_R$	0.5					mA
		20			10		
Operating Junction Temperature Range	$T_j$	- 55 to + 125			- 55 to + 150		°C
Storage Temperature Range	$T_{stg}$	- 55 to + 150					°C



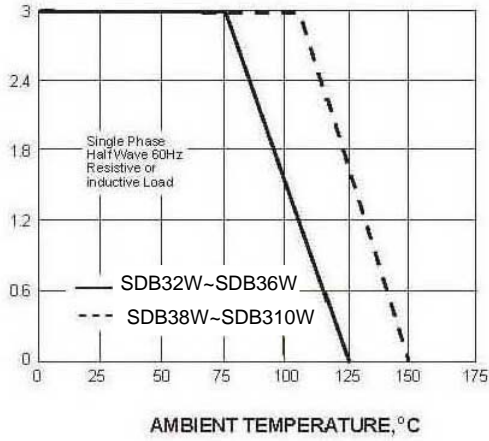
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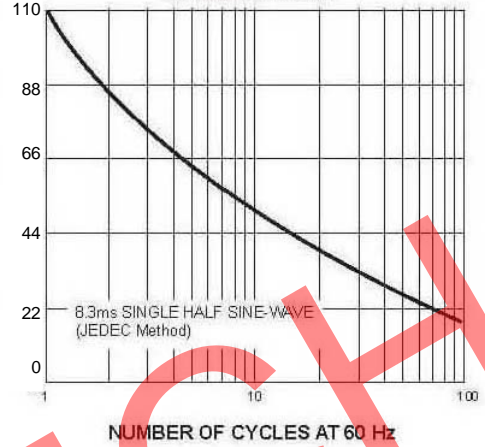
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



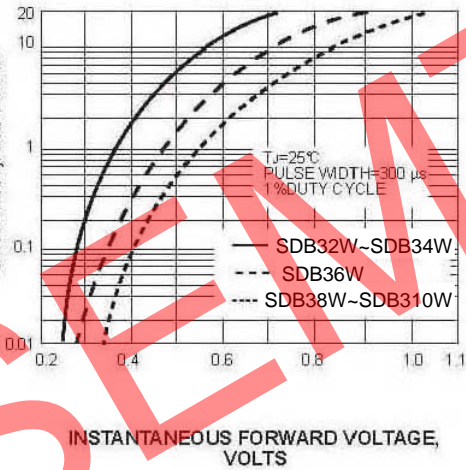
PEAK FORWARD SURGE CURRENT, AMPERES

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



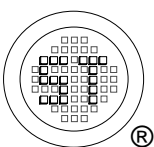
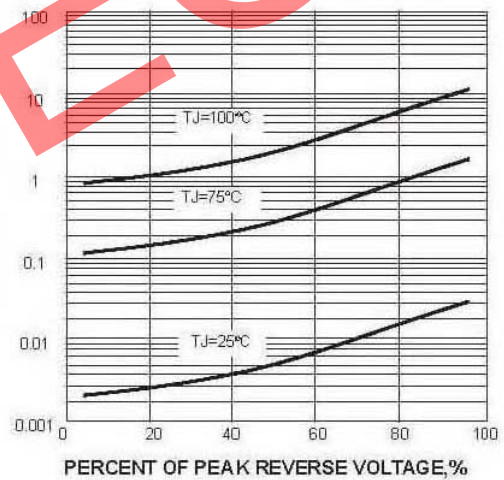
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



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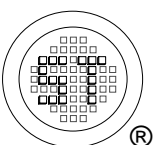
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



UNIT	A	B	C	D	E	F	G	H <sub>E</sub>
mm	1.08	0.1	0.2	2.9	1.9	1.1	0.9	3.9
	0.88	0	0.1	2.6	1.7	0.8	0.7	3.5



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