



## SCHOTTKY BARRIER RECTIFIER

# SS32 THRU SS310

VOLTAGE RANGE  
CURRENT

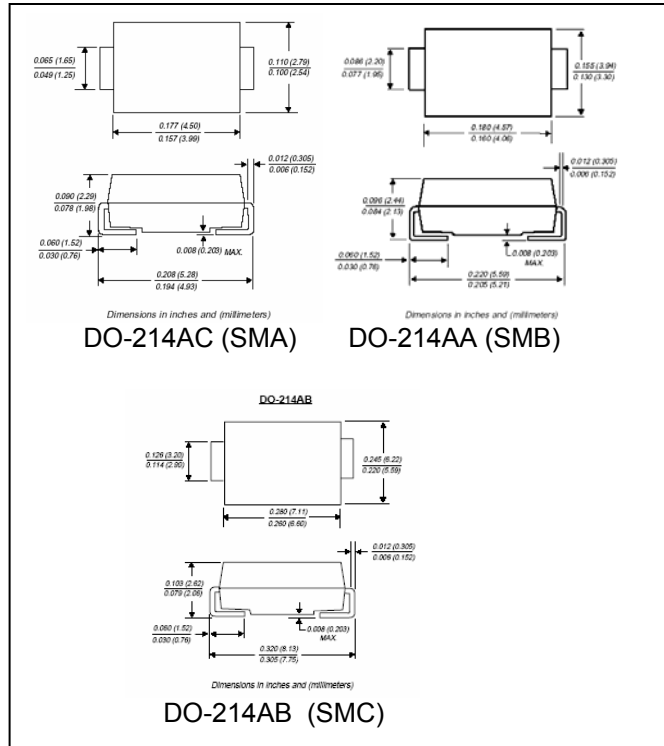
20 to 100 Volts  
3.0 Ampere

### FEATURES

- Low profile surface mount package
- Built in strain relief
- High switching speed
- Low voltage drop, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- Also available in the SMA package, add suffix “A”, i.e. SS32A, and in SMB package, add suffix “B”, i.e. SS32B

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002 ounce, 0.064 gram – DO-214AC (SMA)  
0.003 ounce, 0.093 gram – DO-214AA (SMB)  
0.007 ounce, 0.25 gram – DO-214AB (SMC)



### 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%

	SYMBOLS	SS32	SS33	SS34	SS35	SS36	SS38	SS39	SS310	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	63	70	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	100	Volts
Maximum Average Forward Rectified Current, At $T_J$ see figure 1	$I_{(AV)}$	3.0								Amps
Peak Forward Surge Current	$I_{FSM}$	100								Amps
8.3mS single half sine wave superimposed on rated load (JEDEC method)										
Maximum Instantaneous Forward Voltage @ 3.0A (Note 1)	$V_F$	0.55		0.75		0.85			Volts	
Maximum DC Reverse Current at Rated $T_A = 25^\circ C$	$I_R$	0.5								mA
DC Blocking Voltage per element $T_A = 100^\circ C$		20.0			10.0					
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	88 (SMA)			75 (SMB)		55 (SMC)			$^\circ C/W$
	$R_{\theta JL}$	28 (SMA)			17 (SMB)		17 (SMC)			
Operating Junction Temperature	$T_J$	(-55 TO +150)								$^\circ C$
Storage Temperature Rang	$T_{STG}$	(-55 TO +150)								$^\circ C$

### Notes:

1. Pulse test: 300μS pulse width, 1% duty cycle
2. PCB mounted with 0.55 x 0.55” (14mm x 14mm) copper pads



## RATINGS AND CHARACTERISTIC CURVES SS32 THRU SS310

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

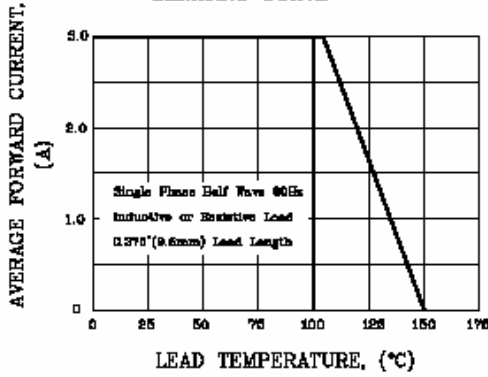


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

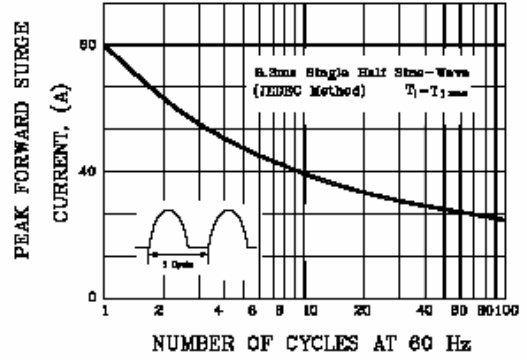


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

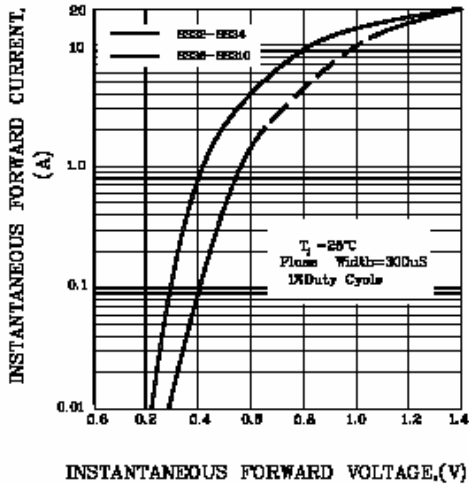


FIG.4-TYPICAL REVERSE CHARACTERISTICS

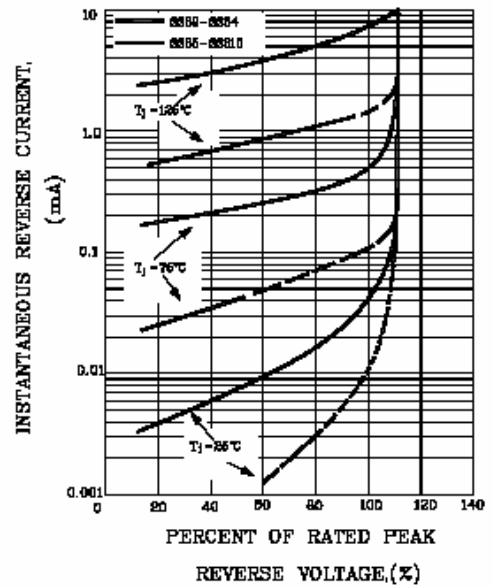


FIG.5-TYPICAL JUNCTION CAPACITANCE

