

# SS52 THRU SS520

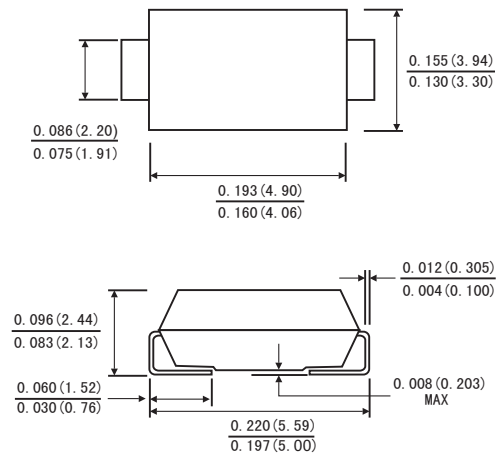
SCHOTTKY BARRIER RECTIFIER  
Reverse Voltage - 20 to 200 Volts  
Forward Current - 5.0Amperes

## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Low profile package
- Built-in strain relief ,ideal for automated placement
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



## SMB(DO-214AA)



## MECHANICAL DATA

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Weight: 0.003ounce,0.093 gram

## 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%.)

	Symbols	SS 52	SS 53	SS 54	SS 56	SS 510	SS 515	SS 520	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	60	100	150	200	Volts
Maximum RMS voltage	$V_{RMS}$	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage	$V_{DC}$	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated $T_J$ )	$I_{FSM}$	150.0							Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)	$V_F$	0.55		0.70	0.85	0.90	0.95	Volts	
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$T_A=25^\circ C$	100				20			$\mu A$
	$T_A=100^\circ C$	5				-			mA
	$T_A=125^\circ C$	-				3			
Typical junction capacitance(Note 3)	$C_J$	500				400			PF
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	70.0 25.0							$^\circ C/W$
Operating junction temperature range	$T_J$	-55 to+150							$^\circ C$
Storage temperature range	$T_{STG}$	-55 to+150							$^\circ C$

- Notes:**
1. Pulse test: 300  $\mu s$  pulse width,1% duty cycle
  2. P.C.B. mounted 0.55X0.55"(14X14mm) copper pad areas
  3. Measured at 1MHz and reverse voltage of 4.0 volts

# RATINGS AND CHARACTERISTIC CURVES SS52 THRU SS520

FIG.1-FORWARD CURRENT DERATING CURVE

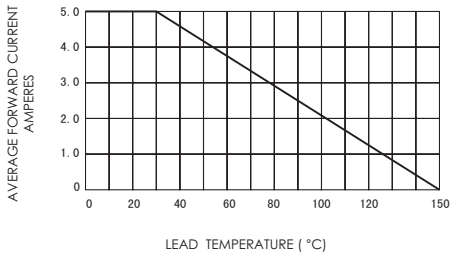


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

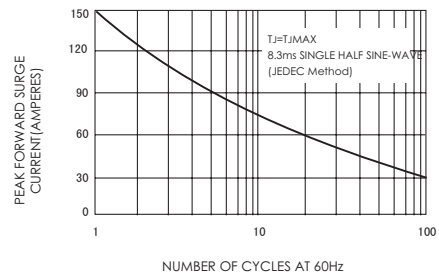


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

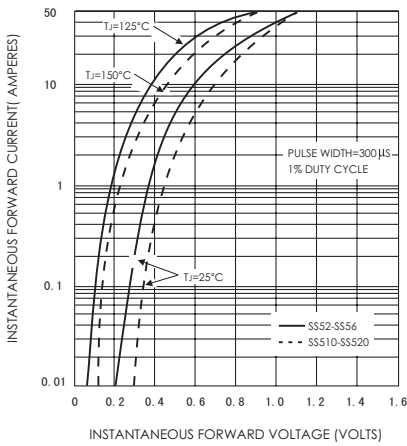


FIG.4-TYPICAL REVERSE CHARACTERISTICS

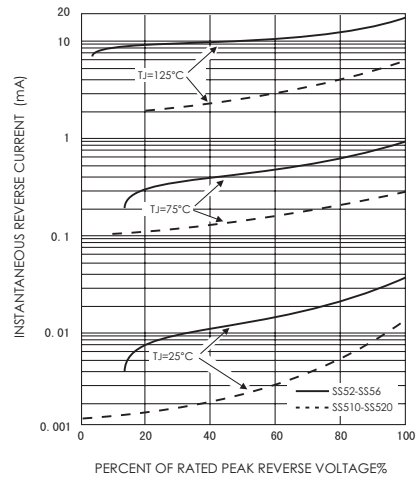


FIG.5-TYPICAL JUNCTION CAPACITANCE

