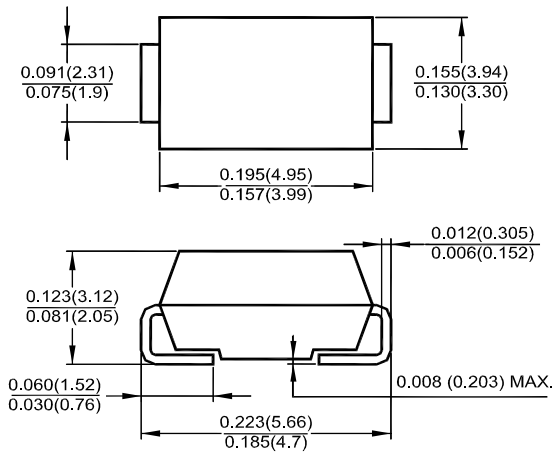
SS52 THRU SS520

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 V
Forward Current - 5 A

SMB (DO-214AA)



Dimensions in inches and (millimeters)

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction with guard ring
- Low forward voltage
- High current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

Mechanical Data

- **Case:** SMB (DO-214AA) molded plastic body
- **Polarity:** color band denotes cathode end

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	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5									A
Peak Forward Surge Current, 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	100									A
Maximum Forward Voltage at 5 A	V_F	0.55			0.7		0.85		0.95		V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a = 100 °C	I_R	0.2 20			1 50						mA
Junction Capacitance[2)]	C_j	500			350						pF
Typical Thermal Resistance, to Ambient[1)]	$R_{\theta JA}$	15			10						°C/W
Junction Temperature Range	T_j	- 55 to + 150									℃
Storage Temperature Range	T_{stg}	- 55 to + 150									℃

[1)] Thermal resistance junction to ambient .

[2)] Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

FIG. 1 – FORWARD CURRENT DERATING CURVE

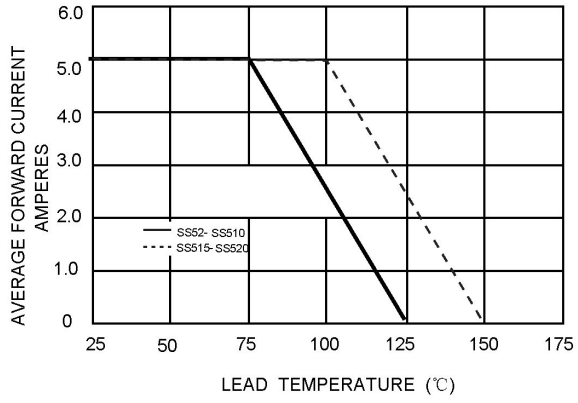


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

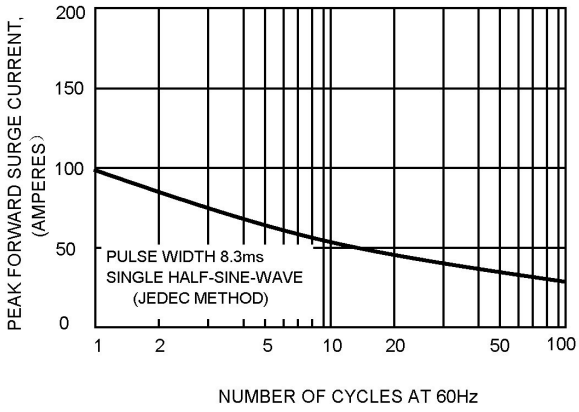


FIG.3 – TYPICAL JUNCTION CAPACITANCE

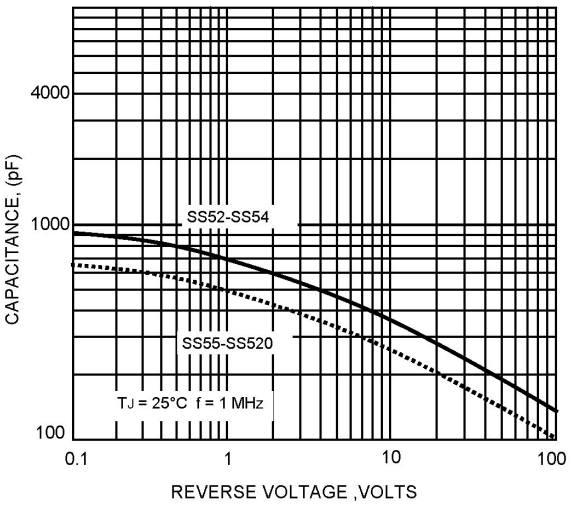


FIG.4-TYPICAL FORWARD CHARACTERISTICS

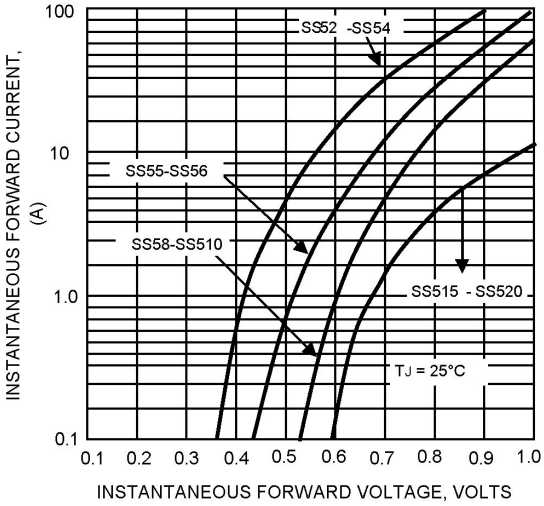


FIG.2-TYPICAL REVER CHARACTERISTICS