

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE: 20 to 200 VOLTS

FORWARD CURRENT: 5.0 AMPERE

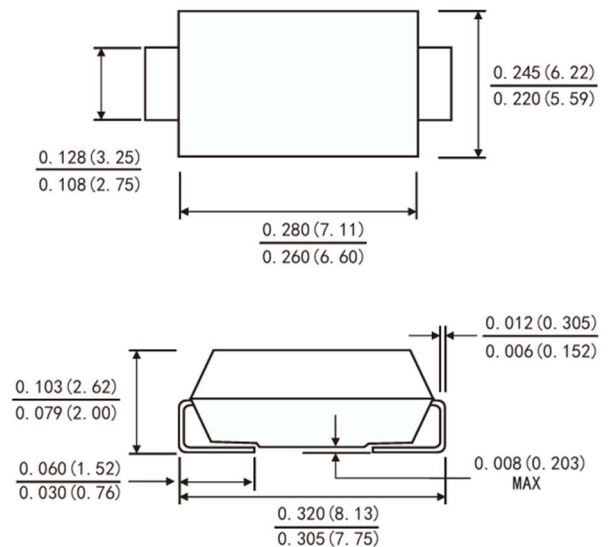
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- For surface mounted applications
- High temperature soldering guaranteed:
260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

Mechanical Data

- Case: JEDEC SMC(DO-214AB)
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Reel: 3000Pcs

SMC(DO-214AB)



Dimensions in inches and (millimeters)

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%.

Parameter / Marking Code	Symbols	SS 52C	SS 53C	SS 54C	SS 56C	SS 510C	SS 515C	SS 520C	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)	$T_A=25^\circ\text{C}$	100				20			μA
	$T_A=100^\circ\text{C}$	5				-			mA
	$T_A=125^\circ\text{C}$	-				3			
Typical junction capacitance (Note 3)	C_J	500				400			Pf
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	55.0 17.0							$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

NOTES:

1. Pulse test: 300µs pulse width, 1% duty cycle
2. P.C.B. mounted with 0.55 x 0.55" (14 x 14mm) copper pad areas
3. Measured at 1MHz and reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

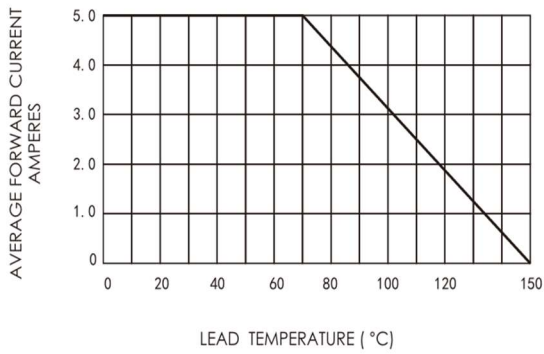


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

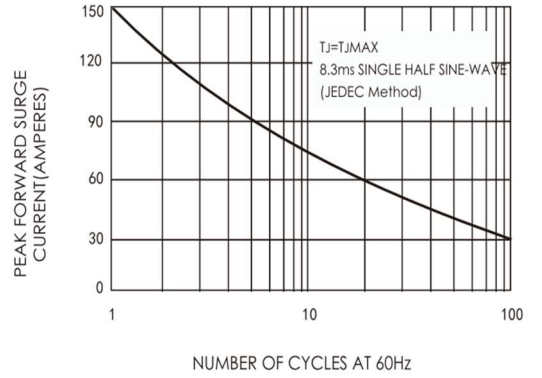


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

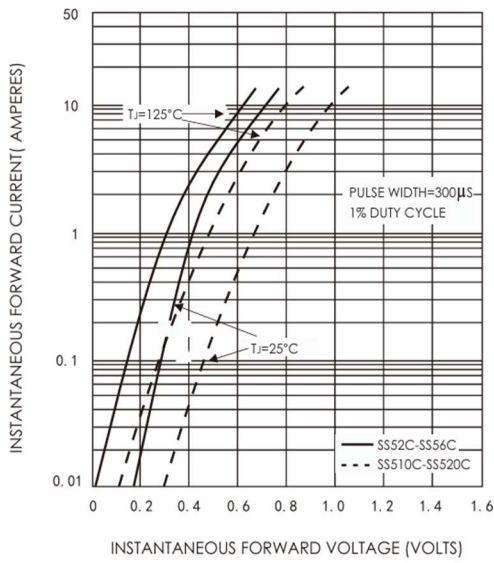


FIG.4-TYPICAL REVERSE CHARACTERISTICS

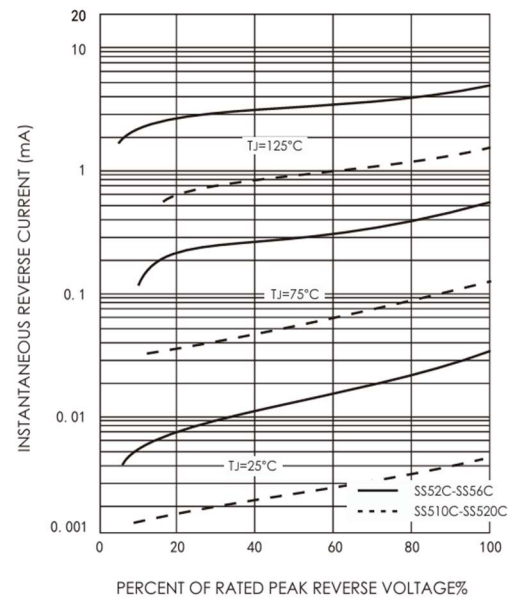


FIG.5-TYPICAL JUNCTION CAPACITANCE

