



FEATURES

- Plastic package has Underwrites Laboratory Flammability Classification 94V-0
- Metal-Silicon Junction
- For surface mount applications
- Guard ring for over voltage protection
- High forward surge current capability
- Super Low forward voltage
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-750 method 2026
- Weight: 0.007 ounce, 0.25 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

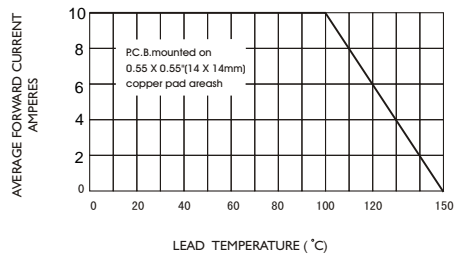
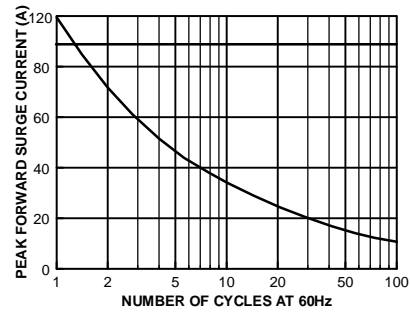
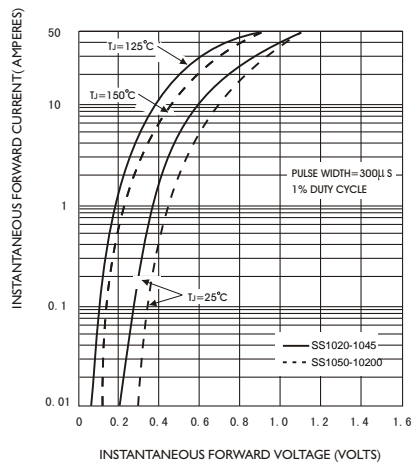
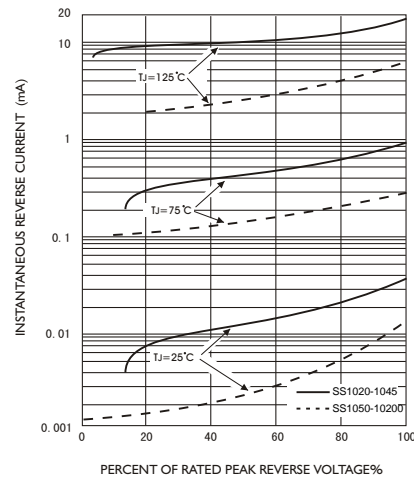
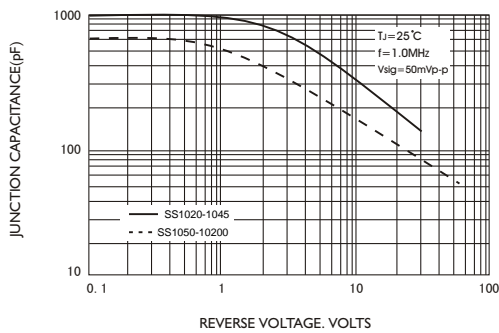
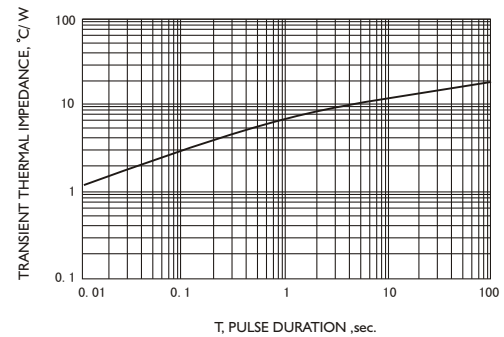
- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	SS1020	SS1030	SS1045	SS1050	SS1060	SS1080	SS10100	SS10200	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	45	50	60	80	100	200	Volts
Maximum RMS Voltage	V_{RMS}	14	21	31.5	35	42	56	70	140	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	45	50	60	80	100	200	Volts
Maximum Average Forward Rectified Current	$I_{(AV)}$	10								Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120								Amps
Maximum Instantaneous Forward Voltage at 10 A (Note 1)	V_F	0.55			0.7		0.85		0.95	Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ C$	0.2								mA
	$T_A = 125^\circ C$	50			10					
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	17								°C/W
	$R_{\theta JA}$	55								°C/W
Operating Temperature Range	T_J	-55 to +150								°C
Storage Temperature Range	T_{STG}	-55 to +150								°C

Notes:

1. Pulse test: 300µs pulse width, 1% duty cycle
2. P.C.B. Mounted with 0.55"× 0.55" (14×14mm) copper pads

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

FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE


OUTLINE DIMENSION

All Dimension in inches and (millimeters)

SMC(DO-214AB)
