

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
- Mounting position: Surface Mounted
- 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	S6A	S6B	S6D	S6G	S6J	S6K	S6M	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	720	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current	$I_{(AV)}$	6.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120							Amps
Maximum Instantaneous Forward Voltage at 6.0A (Note 1)	V_F	1.2							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ C$	10							u A
	$T_A = 100^\circ C$								
Maximum reverse recovery time(Note 2)	T_{rr}	>800							us
Typical Thermal Resistance	$R_{\theta JL}$	10							°C/W
	$R_{\theta JA}$	100							°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. Test conditions : $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

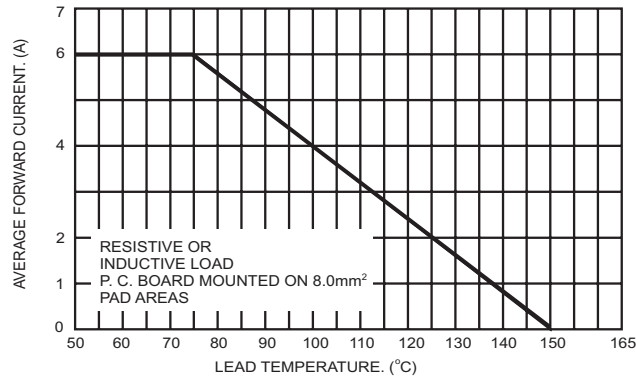


FIG.2- TYPICAL FORWARD CHARACTERISTICS

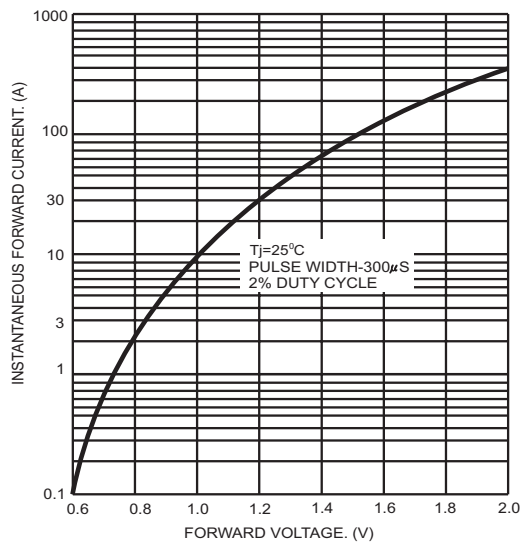


FIG.3- TYPICAL REVERSE CHARACTERISTICS

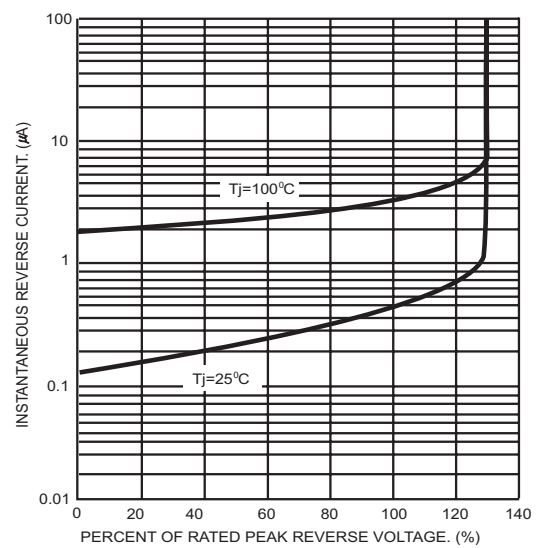


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

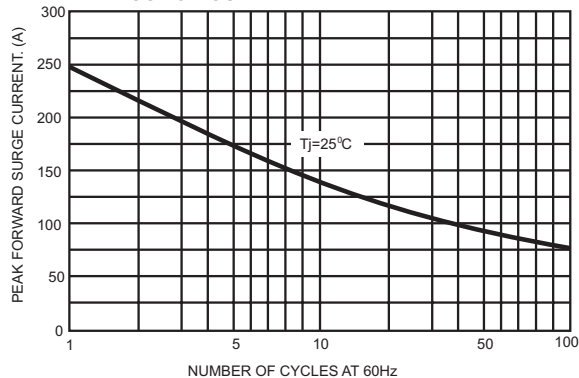
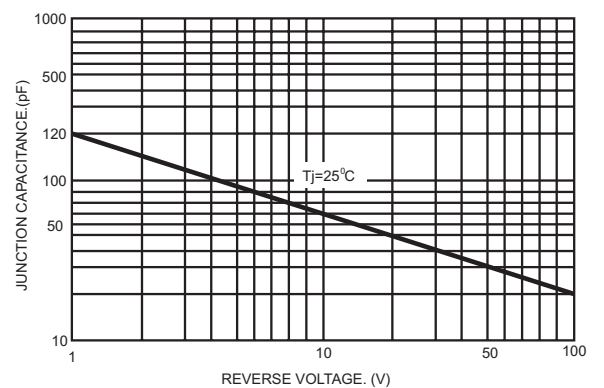


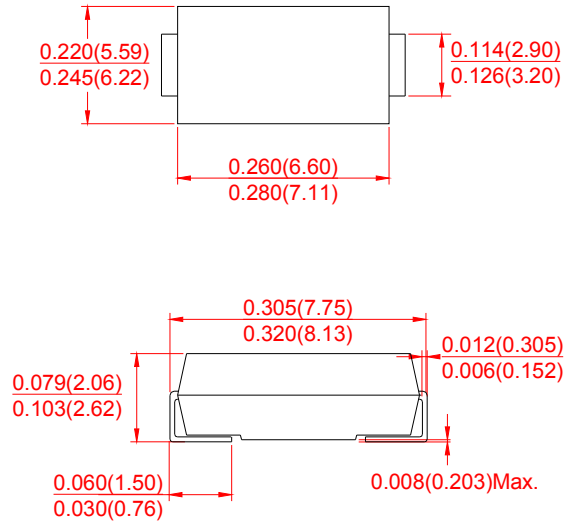
FIG.5- TYPICAL JUNCTION CAPACITANCE



OUTLINE DIMENSION

All Dimension in inches and (millimeters)

SMC(DO-214AB)



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMC	3000/REEL	42000	36X36X36.5	18.50	15.50