SAMYANG ELECTRONICS

SS1545

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 45 V
CURRENT: 15.0 A

FEATURES

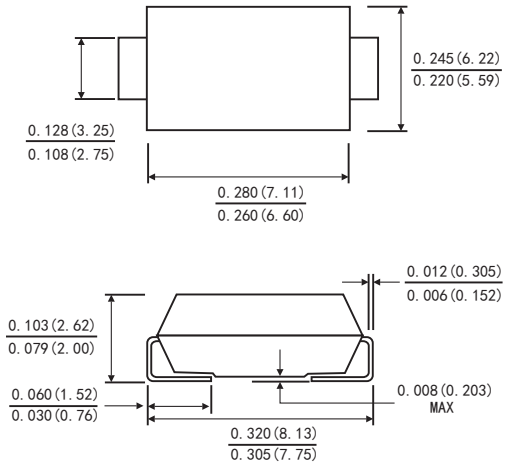
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- For use in low 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 2002/95/EC and WEEE 2002/96/EC



MECHANICAL DATA

- Case: JEDEC SMC(DO-214AB) molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position:Any
- Weight: 0.07ounce, 2.1 grams

SMC(DO-214AB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

	Symbols	SS1545	Units
Maximum repetitive peak reverse voltage	V_{RRM}	45	Volts
Maximum RMS voltage	V_{RMS}	32	Volts
Maximum DC blocking voltage	V_{DC}	45	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_{(AV)}$	15.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T)	I_{FSM}	300	Amps
Instantaneous forward voltage at 15.0 A(Note 1)	V_F	TYP. 0. 48 MAX. 0. 55	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A =25℃	I_R	0.2	mA
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A =100℃	I_R	50	mA
Typical junction capacitance(Note 3)	C_J	400	pF
Typical thermal resistance (Note 2)	$R_{\theta JC}$	3. 0	℃/W
Operating junction temperature range at reduced reverse voltage V_R<=80%V RRM V_R<=50%V RRM in DC forward model	T_J	-65 to+150 -65 to+175 -65 to+200	℃
Storage temperature range	T_{STG}	-65 to+200	℃

NOTE: 1. Pulse test : 300 μs pulse width,1% duty cycle.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to ambient

www.diode.co.kr

FIG.1-FORWARD CURRENT DERATING CURVE

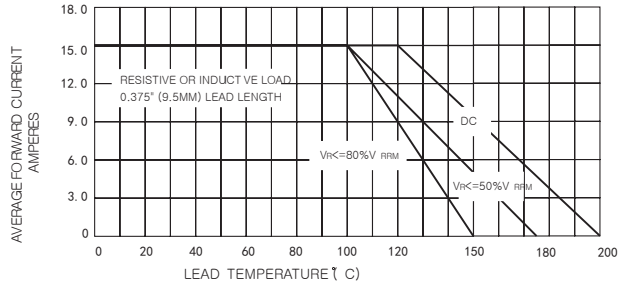


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

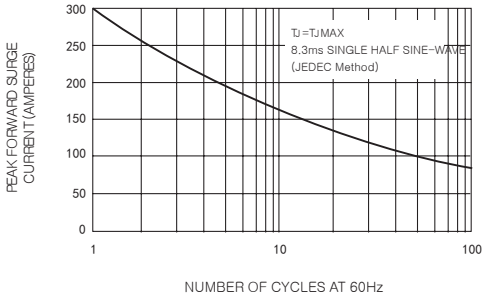


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

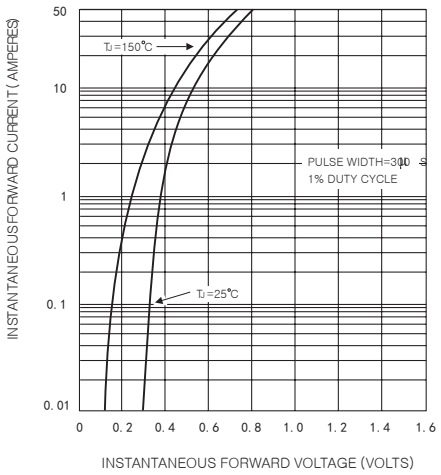


FIG.4-TYPICAL REVERSE CHARACTERISTICS

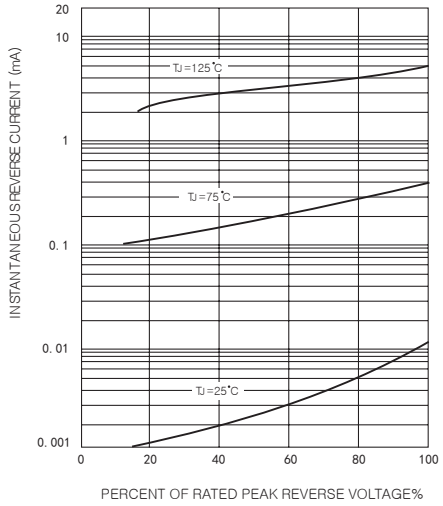


FIG.5-TYPICAL JUNCTION CAPACITANCE

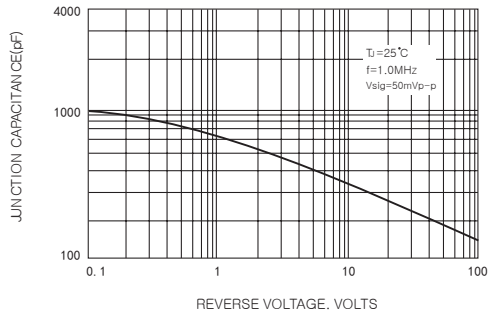


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

