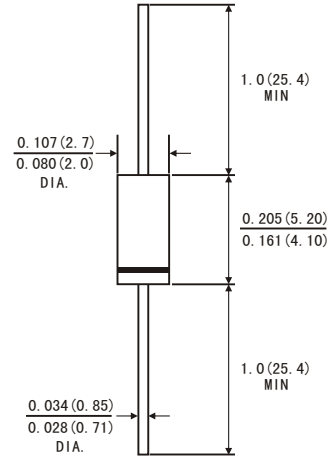


FEATURES

- 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



DO-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012ounce, 0.33 gram

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%.)

	Symbols	SR13	SR14	SR16	SR19	Units
Maximum repetitive peak reverse voltage	V_{RRM}	30	40	60	90	Volts
Maximum RMS voltage	V_{RMS}	21	28	42	64	Volts
Maximum DC blocking voltage	V_{DC}	30	40	60	90	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length at $T_L=75^\circ C$	$I_{(AV)}$	1.5				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	40.0				Amps
Maximum instantaneous forward voltage at 1.5 A(Note 1)	V_F	0.55		0.70	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$T_a=25^\circ C$	0.5				mA
	$T_a=100^\circ C$	10				
Typical junction capacitance(Note 3)	C_J	110				PF
Typical thermal resistance(Note 2)	$R_{\theta JA}$	50.0				°C/W
	$R_{\theta JL}$	15.0				
Operating junction temperature range	T_J	-65 to+125				°C
Storage temperature range	T_{STG}	-65 to+150				°C

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Thermal resistance (from junction to ambient)Vertical P.C.B. mounted , with 1.5 X1.5"(38X38mm)copper pads

3.Measured at 1.0MHz and reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES SR13 THRU SR19

FIG.1-FORWARD CURRENT DERATING CURVE

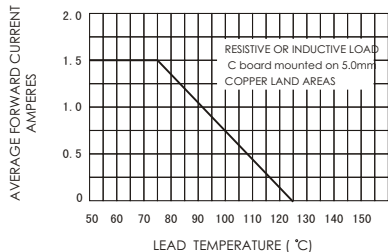


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

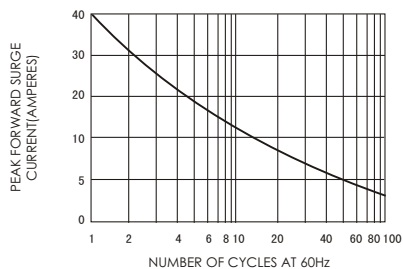


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

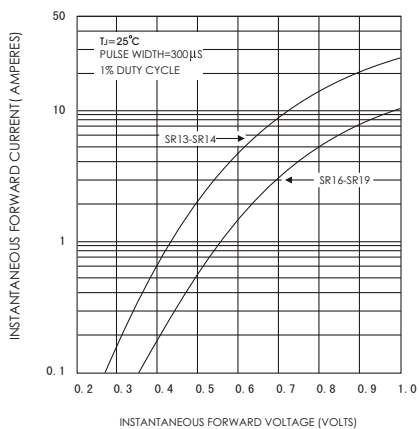


FIG.4-TYPICAL REVERSE CHARACTERISTICS

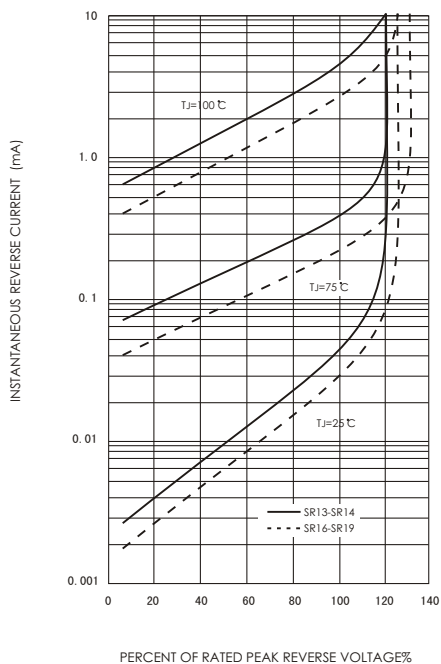


FIG.5-TYPICAL JUNCTION CAPACITANCE

