新芯微电子
NewChip
Microelectronics

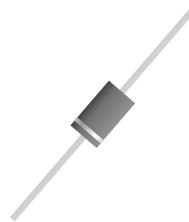
SR1020L THRU SR10200L

SCHOTTKY BARRIER RECTIFIER

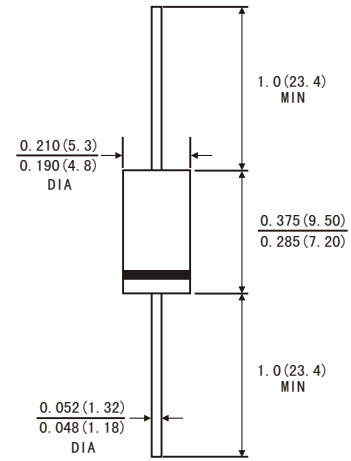
Reverse Voltage - 20 to 200 Volts
Forward Current - 10.0Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260℃/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



DO-201AD



Dimensions in inches and (millimetrers)

MECHANICAL DATA

- *Case*: JEDEC DO-201AD molded plastic body
- *Terminals*: Plated axial leads, solderable per MIL-STD-750,method 2026
- *Polarity*: Color band denotes cathode end
- *Mounting Position*: Any
- *Weight*: 0.041ounce, 1.12 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25℃ ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	SR 1020L	SR 1030L	SR 1045L	SR 1050L	SR 1060L	SR 1080L	SR 10100L	SR 10150L	SR 10200L	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	45	50	60	80	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	21	32	35	42	56	70	105	140	Volts
Maximum DC blocking voltage	V_{DC}	20	30	45	50	60	80	100	150	200	Volts
Maximum average forward rectified current (see Fig.1)	$I_{(AV)}$	10.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0									Amps
Maximum instantaneous forward voltage at 10.0 A(Note 1)	V_F	0.45			0.55		0.75		0.80	0.85	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=125℃	I_R	15			50						mA
Typical thermal resistance (Note 2)	$R_{\theta JC}$	2.5									℃/W
Operating junction temperature range	T_J	-65 to+150									℃
Storage temperature range	T_{STG}	-65 to+150									℃

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

2.Thermal resistance from junction to case

FIG.1-FORWARD CURRENT DERATING CURVE

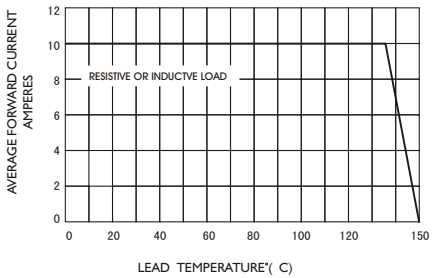


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

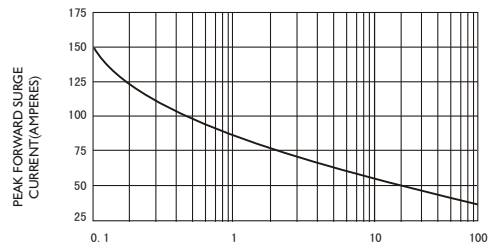


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

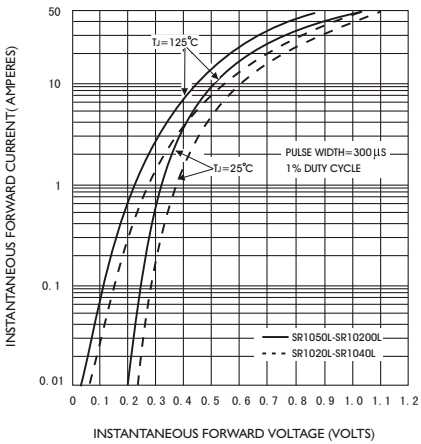


FIG.4-TYPICAL REVERSE CHARACTERISTICS

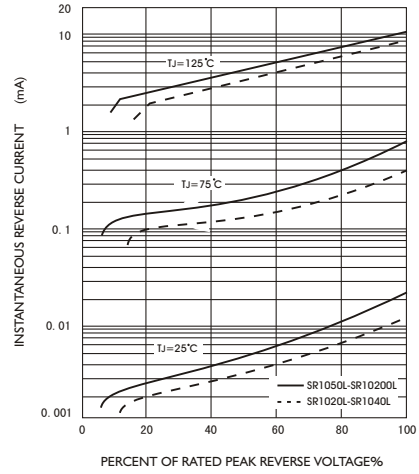


FIG.5-TYPICAL JUNCTION CAPACITANCE

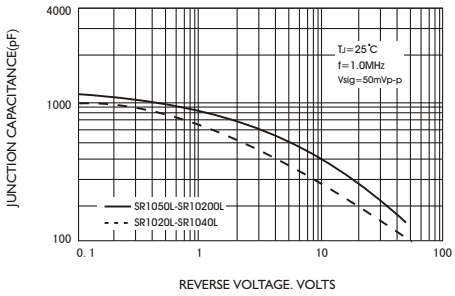


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE