

SR1020 THRU SR10A0

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 10.0Amperes

FEATURES

- . Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- . Metal sliicon junction ,majority carriet conduction
- . Guard ring for overcoltage protection
- . Low power loss, high efficiency
- . High current capability ,Low forward voltage drop
- . High surge capability
- . For use in low voltage , high frequency inverters, $% \left(1\right) =\left(1\right) \left(1\right)$

free wheeling, and polarilty protection applications

- . Dual rectifier construction
- . High temperature soldering guaranteed: 250°C/10 seconds

0.25"(6.35mm)from case

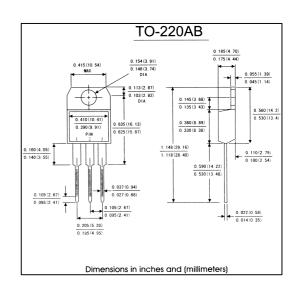
MECHANICAL DATA

- . Case: JEDEC DO-220AB molded plastic body
- . Terminals: lead solderable per MIL-STD-750,method 2026
- . Polarity: As marked. No suffix indicates Common Cathode, suffix"A"

indicates Common Anode

. Mounting Position: Any

. Weight: 0.08 ounce, 2.24 grams



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 | SR1020 | SR1030 | SR1040 | SR1050 | SR1060 | SR1080 | SR10A0 | Units |
|--|---------|--------------|-------------------------|--------|--------|--------|--------|--------|--------------|
| Maximum repetitive peak reverse voltage | VRRM | 20 | 30 | 40 | 50 | 60 | 80 | 100 | Volts |
| Maximum RMS voltage | VRMS | 14 | 21 | 28 | 35 | 42 | 57 | 71 | Volts |
| Maximum DC blocking voltage | VDC | 20 | 30 | 40 | 50 | 60 | 80 | 100 | Volts |
| Macimum average forward rectified current(see Fig.1) | I(AV) | 10.0 | | | | | | | Amps |
| Repetitive peak forward current(square wavr, 20KHz) at Tc=105°C | IFRM | 20.0 | | | | | | | Amps |
| Peak forward surge current 8.3ms singel half sine-wave superimposed on rated load (JEDEC method) | IFSM | 150.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 10 A(Note 1) | VF | 0.70 | | | 0 | .8 | 0.80 | 0.85 | Volts |
| Maximum instantaneous reverse TA=25℃ current at rated DC blocking voltage(Note 1) TA=125℃ | - IR | 1.0 30 25 | | | | | | mA | |
| Typeical thermal resistance(Note 2) | RθJc | 2.5 | | | | | | | °C/W |
| Operating junction temperature range | TJ | | -65 to +125 -65 to +150 | | | | | | $^{\circ}$ |
| storage temperature range | Tstg | -65 to +150 | | | | | | | $^{\circ}$ C |

Notes: 1. Pulse test: 300 $\,\mu$ s $\,$ pulse width,1% duty cycle

2. Thermal resistance from juntion to case



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RATINGS AND CHARACTERISTIC CURVES SR1020 THRU SR10A0

FLG.1-FORWARD CURRENT DERATING CURVE

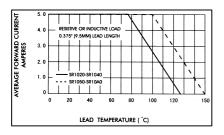


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

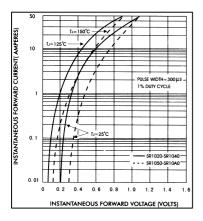


FIG.5-TYPICAL JUNCTION CAPACITANCE

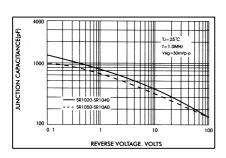


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

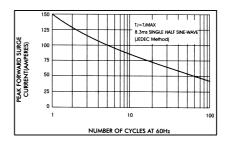


FIG.4-TYPICAL REVERSE CHARACTERISTICS

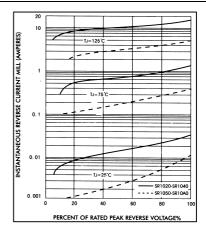
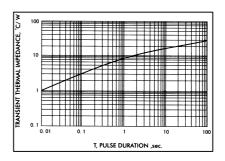


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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