



SEMICONDUCTOR

SR2020 THRU SR2060

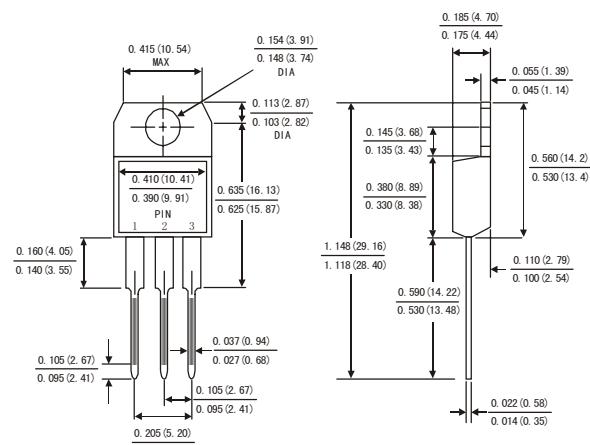
SCHOTTKY BARRIER RECTIFIER
Reverse Voltage - 20 to 60 Volts
Forward Current - 20Amperes

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
- Dual rectifier construction
- High temperature soldering guaranteed:250°C/10 seconds, 0.25"(6.35mm)from case

MECHANICAL DATA

- Case: JEDEC TO-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: 0.08ounce, 2.24 grams



Dimensions in inches and (millimeters)

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%.)

	<i>Symbols</i>	<i>SR 2020</i>	<i>SR 2030</i>	<i>SR 2040</i>	<i>SR 2050</i>	<i>SR 2060</i>	<i>Units</i>
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	Volts
Maximum average forward rectified current at T _c =105°C	I _(AV)			20.0			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 A(Note 1)	V _F		0.70		0.80		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T _A =25°C	I _R		1.0			mA
	T _A =100°C			30.0	50.0		mA
Typical thermal resistance (Note 2)	R _{θJC}			3.0			°C/W
Operating junction temperature range	T _J			-65 to +150			°C
Storage temperature range	T _{STG}			-65 to +175			°C

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

2.Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC CURVES SR2020 THRU SR2060

FIG.1-FORWARD CURRENT DERATING CURVE

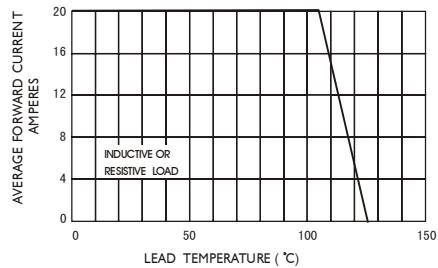


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

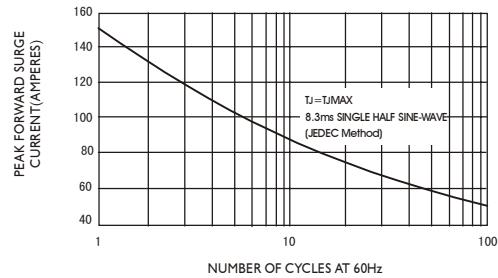


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

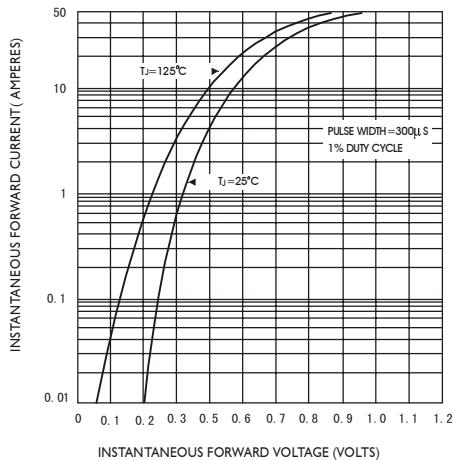


FIG.4-TYPICAL REVERSE CHARACTERISTICS

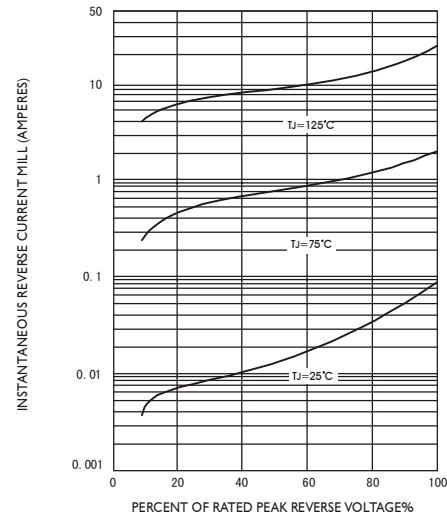


FIG.5-TYPICAL JUNCTION CAPACITANCE

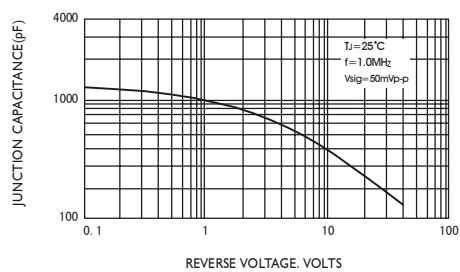


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

