SEMICONDUCTOR

SR520 THRU SR5200

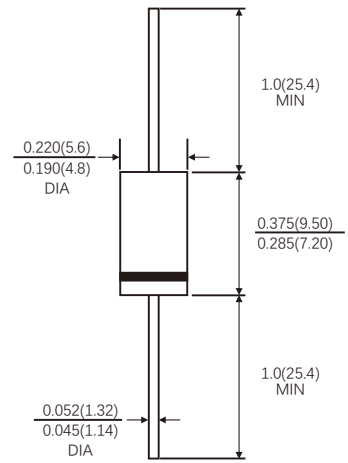
SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts
Forward Current - 5.0Amperes

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 2015/863/EU

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, 1.15 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%.)

Parameters		Symbols	SR 520	SR 530	SR 540	SR 560	SR 5100	SR 5150	SR 5200	Units
Maximum repetitive peak reverse voltage		V_{RRM}	20	30	40	60	100	150	200	Volts
Maximum RMS voltage		V_{RMS}	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage		V_{DC}	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)		$I_{F(AV)}$	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T_L)		I_{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)		V_F	0.55			0.70	0.85	0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T_J=25°C	I_R	100				20			μA
	T_J=100°C		5				-			mA
	T_J=125°C		-				3			
Typical junction capacitance(Note 3)		C_J	270			190	145	100	85	pF
Typical thermal resistance (Note 2)		$R_{\theta JA}$ $R_{\theta JL}$	25.0 8.0							°C/W
Operating junction temperature range		T_J	-55 to+150							°C
Storage temperature range		T_{STG}	-55 to+150							°C

Notes: 1.Pulse test: 300μs pulse width,1% duty cycle
2.Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375"(9.5mm)lead length
3.Measured at 1MHz and reverse voltage of 4.0 volts

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RATINGS AND CHARACTERISTIC CURVES OF SR520 THRU SR5200

FIG.1-FORWARD CURRENT DERATING CURVE

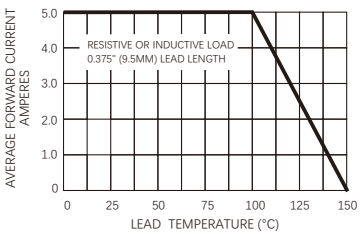


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

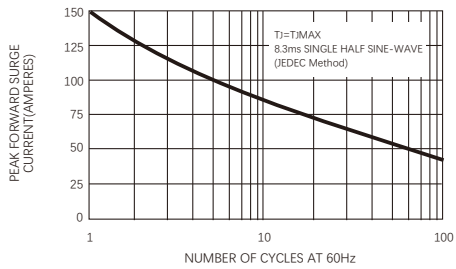


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

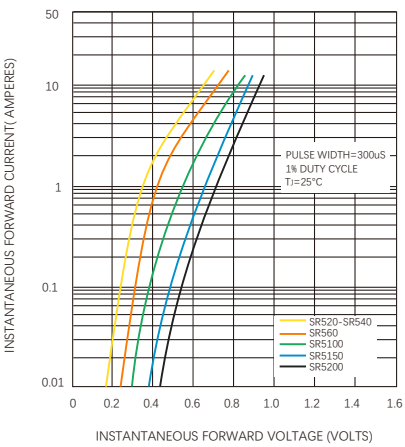


FIG.4-TYPICAL REVERSE CHARACTERISTICS

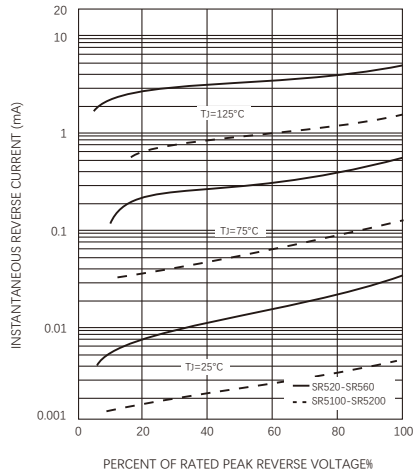
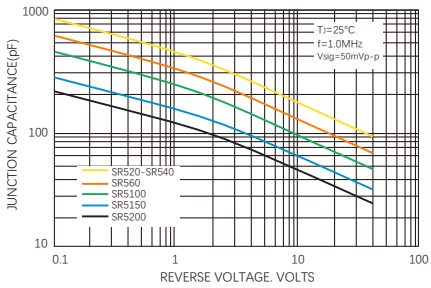


FIG.5-TYPICAL JUNCTION CAPACITANCE



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