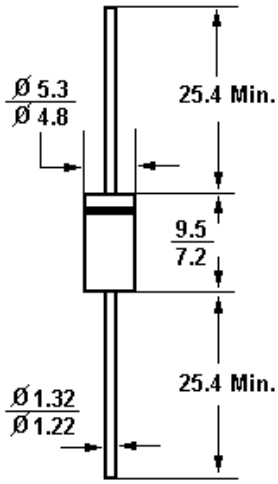
SR502 THRU SR510

SCHOTTKY BARRIER RECTIFIERS
Reverse Voltage – 20 to 100 Volts
Forward Current – 5.0 Amperes

DO-201AD



Dimnsions in mm

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:250? /10 seconds at terminals, 0.375”(9.5mm)lead length, 5lb.(2.3kg)tension.

Mechanical Data

- Case: Molded plastic body, DO-201AD.
- Terminals: Axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end.
- Mounting Position: Any

Absolute Maximum Ratings and Characteristics

Ratings at 25^{0}C unless otherwise specified. Single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%

	Symbols	SR 502	SR 503	SR 504	SR 505	SR 506	SR 507	SR 508	SR 509	SR 510	Units
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	70	80	90	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	49	57	63	71	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	70	80	90	100	V
Maximum average forward rectified current 0.375” (9.5mm)lead length	$I_{(AV)}$	5.0									A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method at rated T_L)	I_{FSM}	150									A
Maximum instantaneous forward voltage at 5 A (Note 1)	V_F	0.55			0.70		0.80			0.85	V
Maximum reverse current T_A = 25 ^{O}C	I_R	1.0					1.5				mA
at rated reverse voltage(Note 1) T_A = 100^{O}C		50			25						
Typical junction capacitance (Note 2)	C_{tot}	500			400						pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	25 8									^{O}C/W
Operating junction temperature range	T_J	-65 to +125			-65 to +150						^{O}C
storage temperature range	T_S	-65 to +150									^{O}C

Notes: (1) Pulse test: 300μ s pulse width, 1% duty cycle
(2) Measured at 1MH$_Z$ and applied reverse voltage of 4 Volts
(3) Thermal Resistance from Junction to lead vertical P.C.B, mounted with 0.375”(9.5mm) lead length.