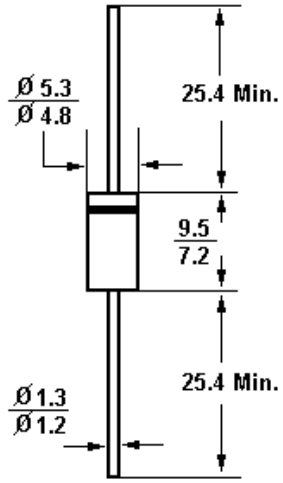
SR520 THRU SR5100

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

DO-201AD



Dimnsions in mm

Features

- High current capability
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications

Mechanical Data

- Case: Molded plastic body, DO-201AD
- Epoxy: UL-94V-O rate flame retardant
- Terminals: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Absolute Maximum Ratings and Characteristics

Ratings at 25^{0}C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

	Symbols	SR520	SR530	SR540	SR550	SR560	SR580	SR5100	Units
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	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)	I_{FSM}	150							A
Maximum forward voltage at 5A DC	V_F	0.55			0.70		0.85		V
Maximum reverse current at T_A = 25 ^{O}C	I_R	0.5							mA
rated DC blocking voltage T_A = 100^{O}C		50							
Typical junction capacitance (Note 1)	C_J	500			380				pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	15			10				^{O}C/W
Operating junction temperature range	T_J	125							^{O}C
storage temperature range	T_S	-50 to +125							^{O}C

Notes: (1) Measured at 1MH$_Z$ and applied reverse voltage of 4 Volts

(2) Thermal Resistance from Junction to Ambient and from Junction to lead at 0.375”(9.5mm) lead length P.C.B. mounted

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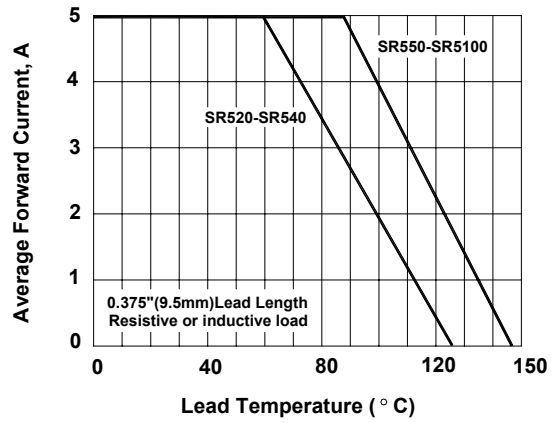
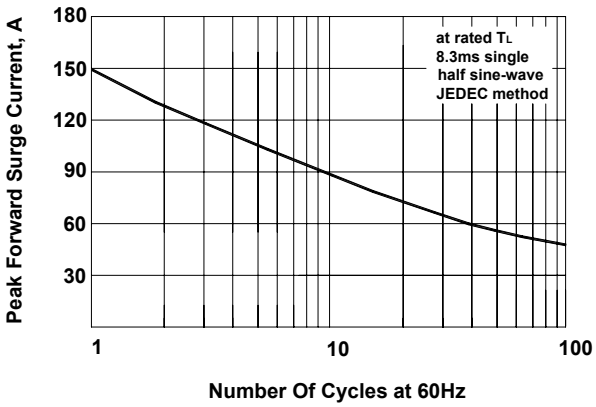
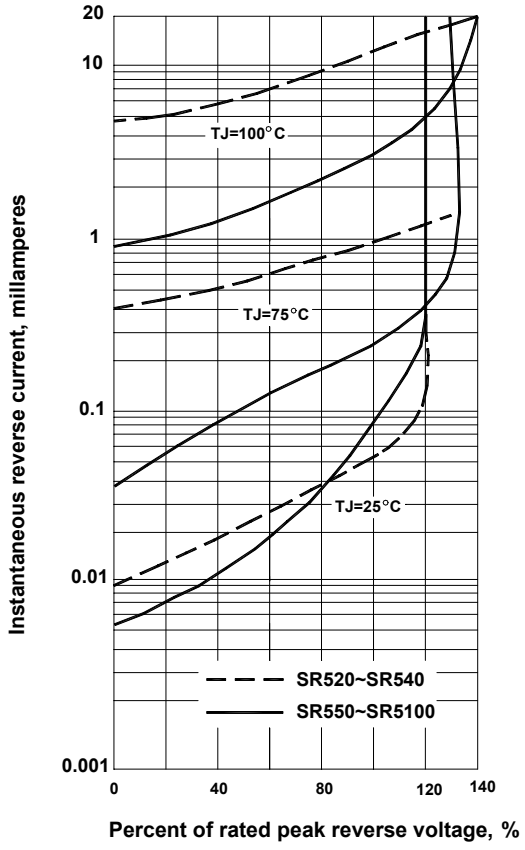
Forward Current Derating Curve



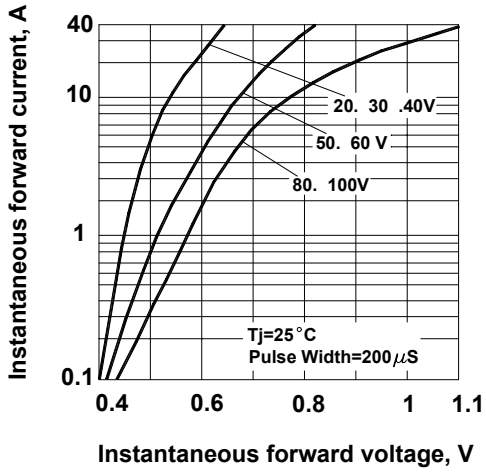
Max Non-repetitive Peak Forward Surge Current



Typical reverse characteristics



Typical forward characteristics



Typical Junction Capacitance