

SR520 THRU SR5100

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage – 20 to 100 Volts

Forward Current – 5.0 Amperes

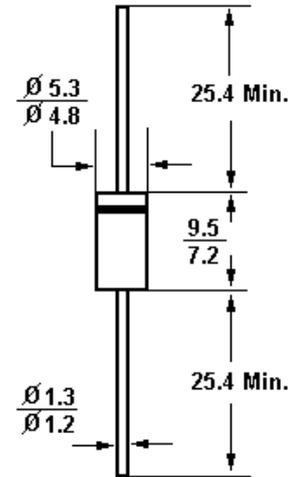
DO-201AD

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



Dimensions in mm

Absolute Maximum Ratings and Characteristics

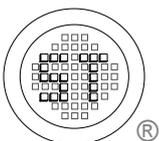
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

	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 rated DC blocking voltage	I_R	0.5							mA
$T_A = 25^{\circ}C$ $T_A = 100^{\circ}C$		50							
Typical junction capacitance (Note 1)	C_J	500		380		pF			
Typical thermal resistance (Note 2)	$R_{\theta JA}$	15		10		$^{\circ}C/W$			
Operating junction temperature range	T_J	125							$^{\circ}C$
storage temperature range	T_S	-50 to +125							$^{\circ}C$

Notes: (1) Measured at 1MHz and applied reverse voltage of 4 Volts

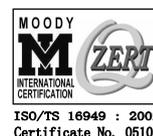
(2) Thermal Resistance from Junction to Ambient and from Junction to lead at 0.375"(9.5mm) lead length

P.C.B. mounted



SEMTECH ELECTRONICS LTD.

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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001
Certificate No. 7116

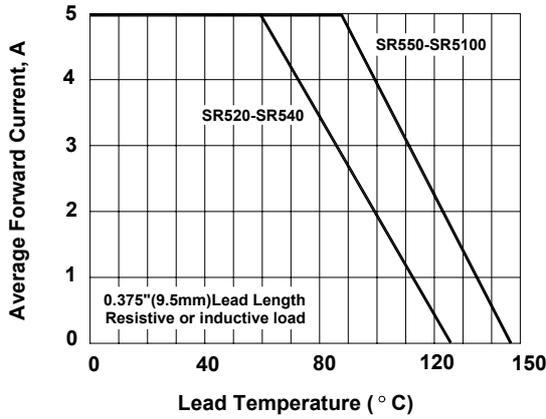


ISO 9001 : 2000
Certificate No. 555-155-000-000

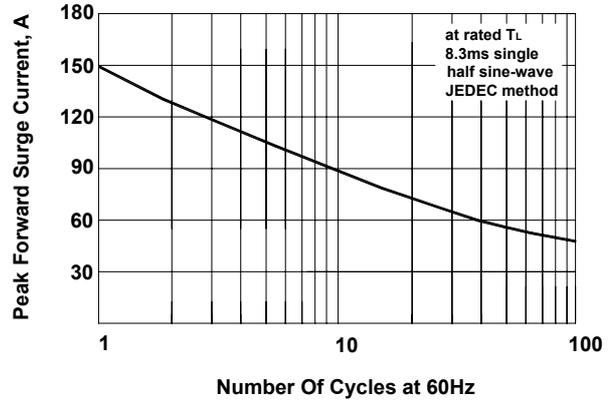
Dated : 10/09/2003

SR520 THRU SR5100

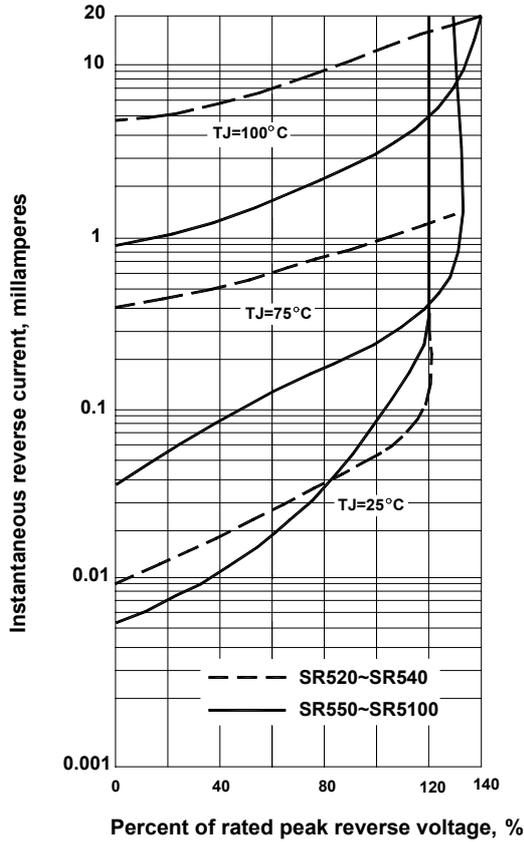
Forward Current Derating Curve



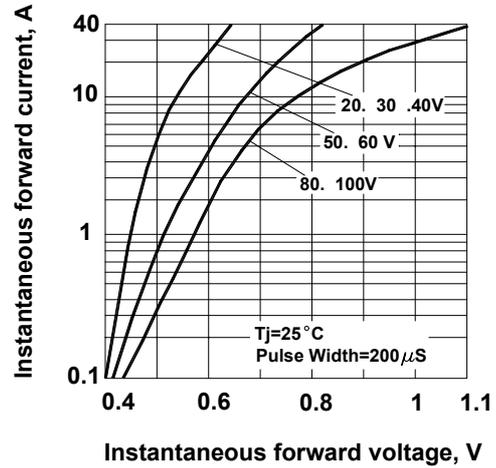
Max Non-repetitive Peak Forward Surge Current



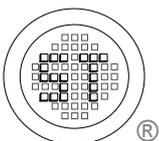
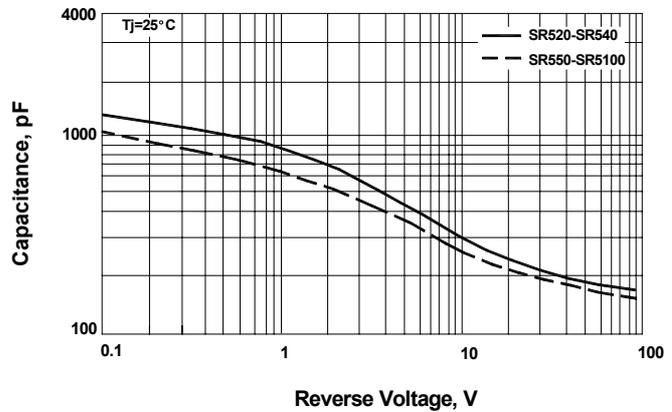
Typical reverse characteristics



Typical forward characteristics



Typical Junction Capacitance



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