CUMSUMI®

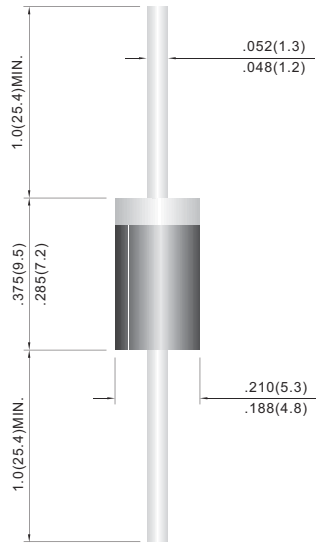
SCHOTTKY BARRIER RECTIFIERS
Reverse Voltage – 20 to 200 Volts
Forward Current – 5.0 Amperes

RoHS compliant

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

DO-201AD Unit: inch(mm)



Mechanical Data

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

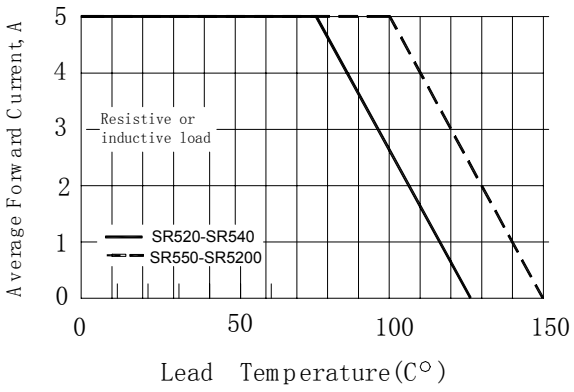
Absolute Maximum Ratings and Characteristics

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

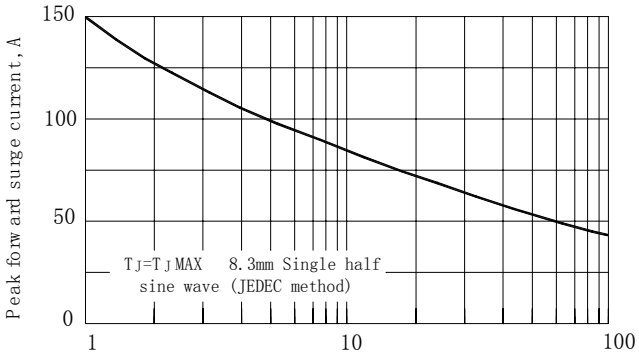
	Symbols	SR 520	SR 530	SR 540	SR 560	SR 580	SR 5100	SR 5150	SR 5200	Units
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	60	80	100	150	200	V
Maximum average forward rectified 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 instantaneous forward voltage at 5 A (Note 1)	V_F	0.55			0.70	0.85		0.90	0.95	V
Maximum reverse current T_A = 25 ^{O}C	I_R	2.5								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, from junction to ambient(Note 3)	$R_{\theta JA}$	25								^{O}C/W
Typical thermal resistance, from junction to lead(Note 3)	$R_{\theta JL}$	8.0								^{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: 300 μs 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

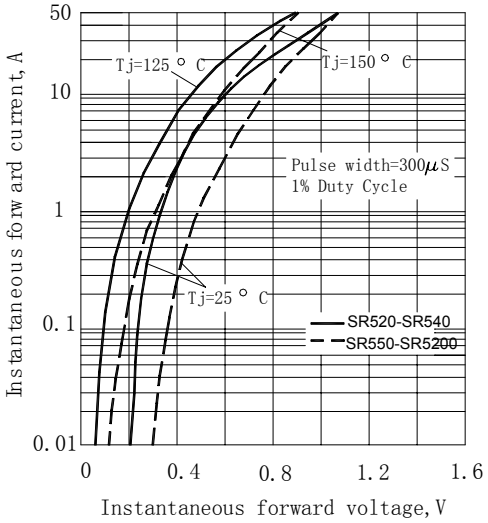
Forward Current Derating Curve



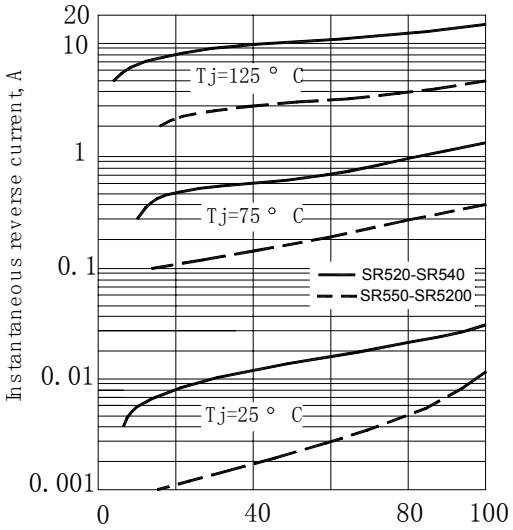
Maximum non-repetitive peak
forward surge current



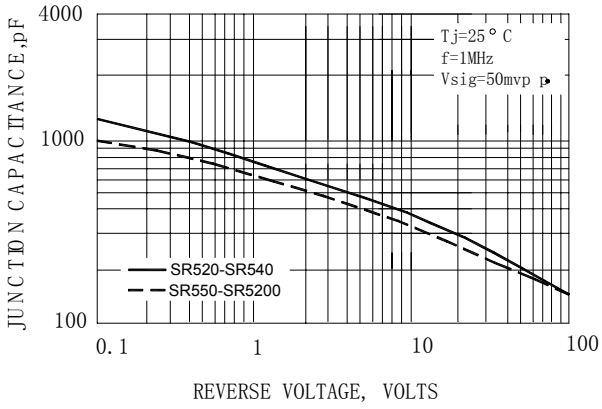
Typical instantaneous forward
characteristics



Typical reverse characteristics



TYPICAL JUNCTION CAPACITANCE



TYPICAL TRANSIENT THERMAL IMPEDANCE