

SR502 - SR520

5.0 AMPS. Schottky Barrier Rectifiers

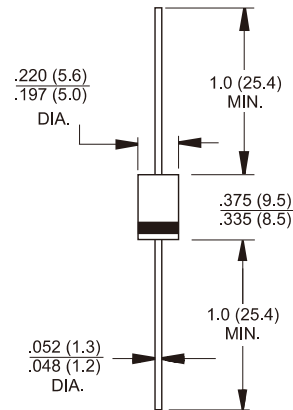
DO-201AD

Features

- Low power loss, high efficiency.
- High current capability, Low VF.
- High reliability
- High surge current capability.
- Epitaxial construction.
- Guard-ring for transient protection.
- For use in low voltage, high frequency inverter, free wheeling, and polarity protection application
- Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- Cases: DO-201AD molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode
- High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 1.10 grams



Dimensions in inches and (millimeters)
Marking Diagram



SR5XX = Specific Device Code
G = Green Compound
Y = Year
WW = Work Week

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	SR 502	SR 503	SR 504	SR 505	SR 506	SR 509	SR 510	SR 515	SR 520	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	90	100	150	200	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	63	70	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	90	100	150	200	V
Maximum Average Forward Rectified Current Refer to Fig 1	I _{F(AV)}	5.0									A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	120									A
Maximum Instantaneous Forward Voltage @ 5.0A	V _F	0.55			0.70		0.85		1.05		V
Maximum DC Reverse Current @ T _A =25°C	I _R	0.5				0.1				mA	
at Rated DC Blocking Voltage @ T _A =100°C (Note 1)		15			10			mA			
@ T _A =125°C		—						5		1	
Typical Junction Capacitance (Note 2)	C _j	250			210		120				pF
Typical Thermal Resistance (Note 3)	R _{θJA} R _{θJC}	35 6					35 6				°C/W
Operating Temperature Range	T _J	-65 to +150									°C
Storage Temperature Range	T _{STG}	-65 to +150									°C

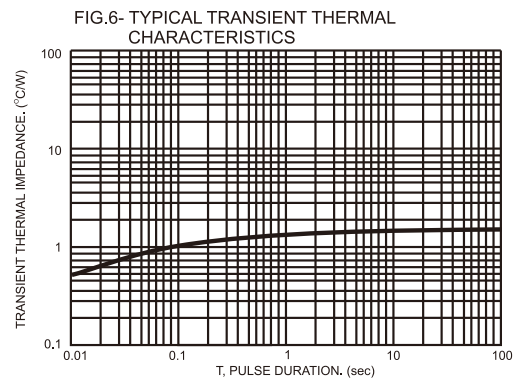
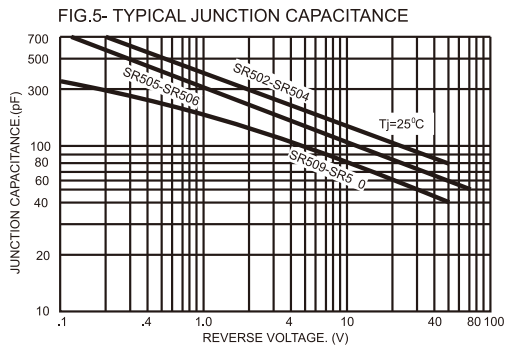
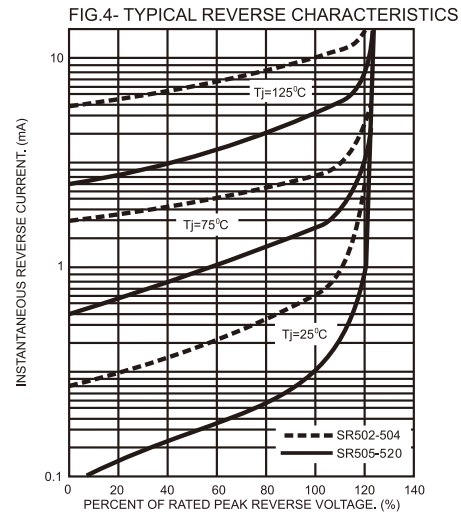
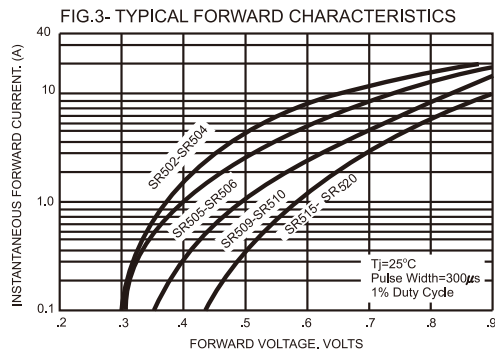
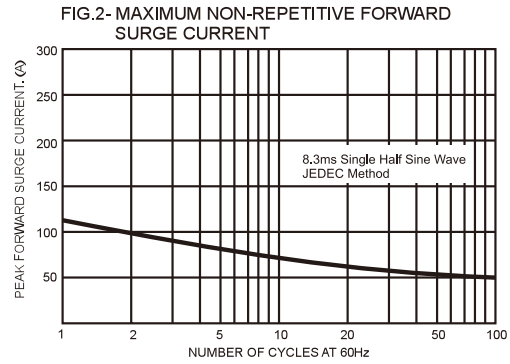
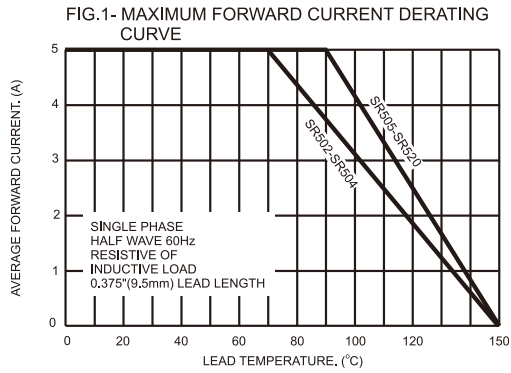
Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

3: Mount on Cu-Pad Size 16 mm x 16 mm on P.C.B.

Version: F10

RATINGS AND CHARACTERISTIC CURVES (SR502 THRU SR520)



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