

Features

- Plastic package has underwriters laboratory flammability classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for over voltage 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: 260°C/10 seconds, at terminals
- Component in accordance to RoHS 2011/65/EU



DO-201AD

Mechanical Data

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: color band denotes cathode end
- Mounting position: Any
- Weight: 0.041ounce, 1.15 grams

Maximum Ratings and Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%.)

Parameter	Symbols	GSR 520	GSR 530	GSR 540	GSR 560	GSR 5100	GSR 5150	GSR 5200	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	42	71	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	60	100	150	200	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length (see fig.1)	$I_{(AV)}$	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}	150.0							A
Maximum Instantaneous Forward Voltage at 5.0A ¹	V_F	0.55		0.70	0.85	0.90	0.95	V	
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹	$T_A=25^\circ\text{C}$	100				20			μA
	$T_A=100^\circ\text{C}$	5				-			mA
	$T_A=125^\circ\text{C}$	-				3			
Typical Junction Capacitance ³	C_J	500				400			PF
Typical Thermal Resistance ²	$R_{\theta JA}$	25							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	8							
Operating Junction Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

Notes:

1. Pulse test: 300 μs pulse width, 1% duty cycle
2. Thermal resistance from junction to lead vertical P.C.B. mounted, 0.375"(9.5mm) lead length
3. Measured at 1MHz and reverse voltage of 4.0volts

Ratings and Characteristics Curves

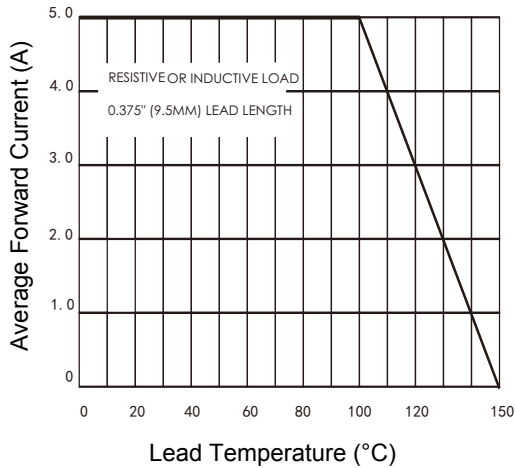


Figure 1. Forward Current Derating Curve

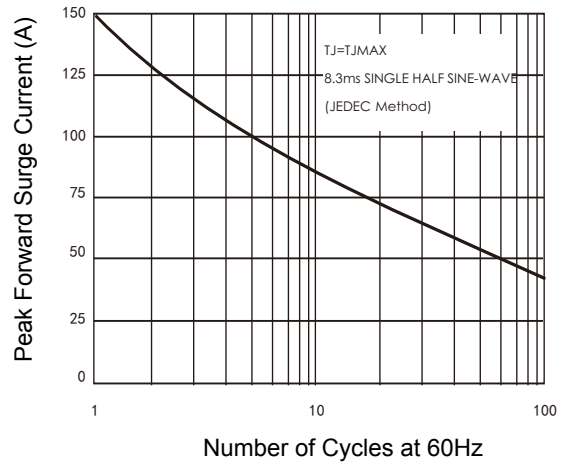


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

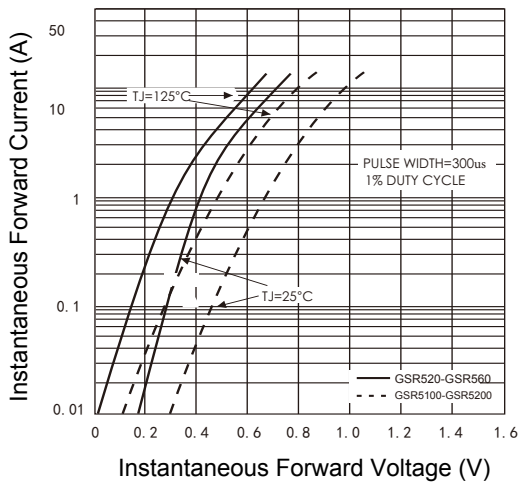


Figure 3. Typical Instantaneous Forward Characteristics

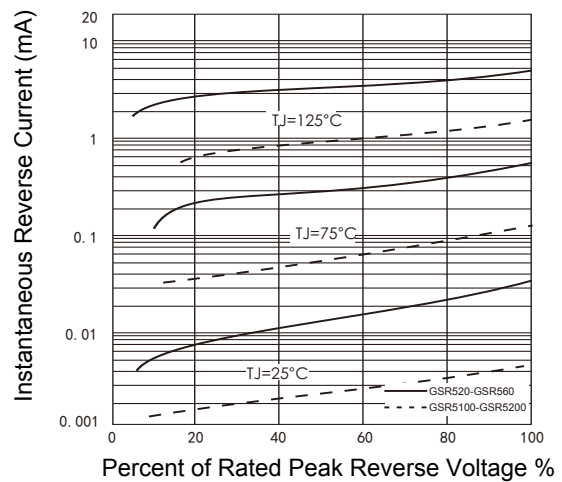


Figure 4. Typical Reverse Characteristics

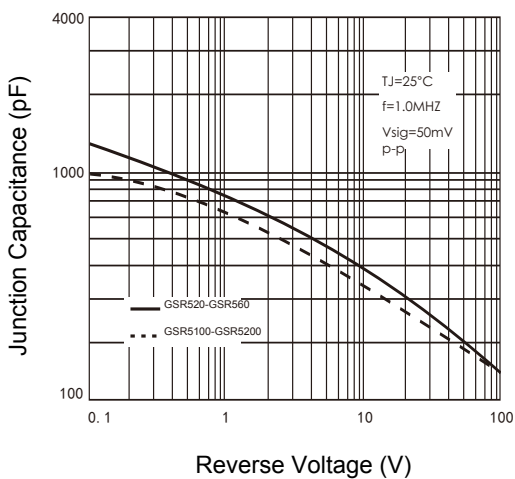


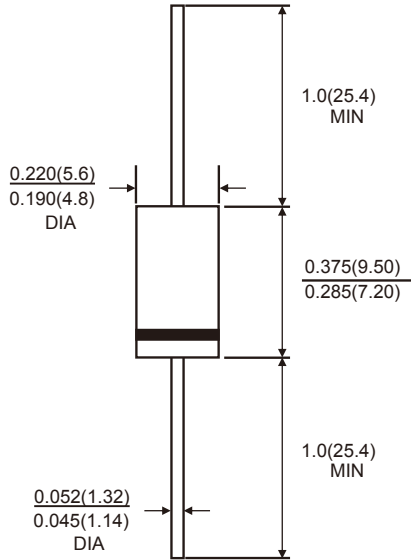
Figure 5. Typical Junction Capacitance

GSR520 thru GSR5200

Schottky Barrier Rectifiers

Reverse Voltage 20V to 200V Forward Current 5A

Package Outline Dimensions (DO-201AD)



Unit in inches (millimeters)