

# GSR1200 thru GSR6000

High Voltage Rectifiers

Reverse Voltage 1200V to 6000V Forward Current 0.2A to 0.5A

## Features

- High speed switching for high efficiency
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250 °C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0



Package: DO-204AC(DO-15)

## Mechanical Data

- Case: JEDEC DO-15 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.013 ounce, 0.40 grams



## Maximum Ratings & Electrical Characteristics

( $T_A=25^{\circ}\text{C}$  unless otherwise specified, Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.)

PARAMETER	Symbol	GSR 1200	GSR 1500	GSR 1800	GSR 2000	GSR 2500	GSR 3000	GSR 4000	GSR 5000	GSR 6000	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1200	1500	1800	2000	2500	3000	4000	5000	6000	V
Maximum RMS Voltage Maximum	$V_{RMS}$	840	1050	1260	1400	1750	2100	2800	3500	4200	V
DC Blocking Voltage	$V_{DC}$	1200	1500	1800	2000	2500	3000	4000	5000	6000	V
Maximum Average Forward Rectified Current 0.375"(9.5mm) Lead Length at $T_A=50^{\circ}\text{C}$	$I_{AV}$	0.5				0.2					A
Peak Forward Surge Current 8.3ms Single Half Sine- wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30.0									A
Maximum Instantaneous Forward Voltage at $I_{AV}$	$V_F$	2.0		3.0		4.0		5.0		6.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A=25^{\circ}\text{C}$ @ $T_A=100^{\circ}\text{C}$	$I_R$	5.0 50.0									uA
Typical Junction Capacitance <sup>1</sup>	$C_J$	15.0									pF
Typical Thermal Resistance <sup>2</sup>	$R_{\theta JA}$	50.0									$^{\circ}\text{C/W}$
Operating Junction Temperature Range	$T_J$	-65 to +150									$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150									$^{\circ}\text{C}$

**Notes:**

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B. mounted

## Ratings and Characteristics Curves

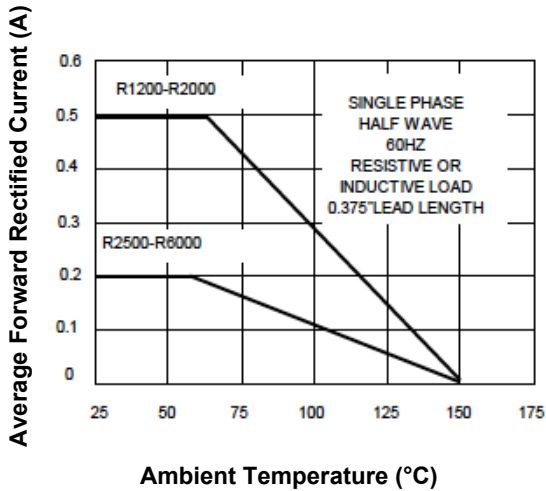


Figure 1. Forward Current Derating Curve

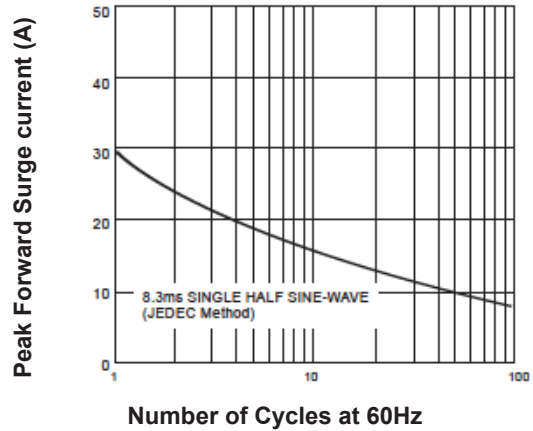


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

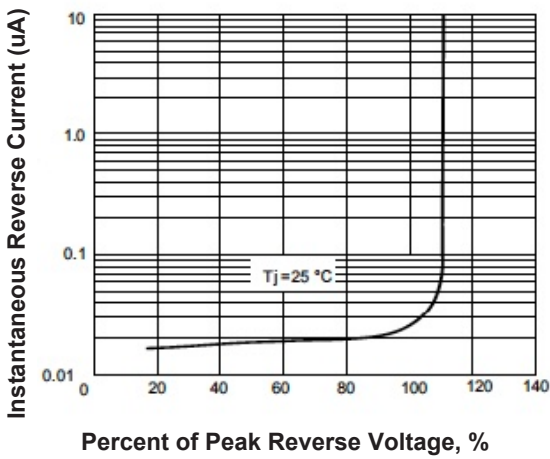
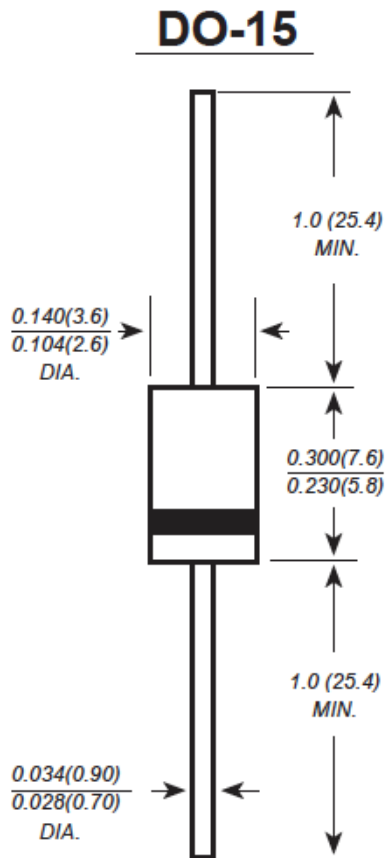


Figure 3. Typical Instantaneous Forward Characteristics

## Package Outline Dimensions DO-204AC(DO-15)



*Dimensions in inches and (millimeters)*