

**Glass Passivated High Efficient Rectifiers**  
**Reverse Voltage 50 to 1000 Volts Forward Current 5.0 Amperes**

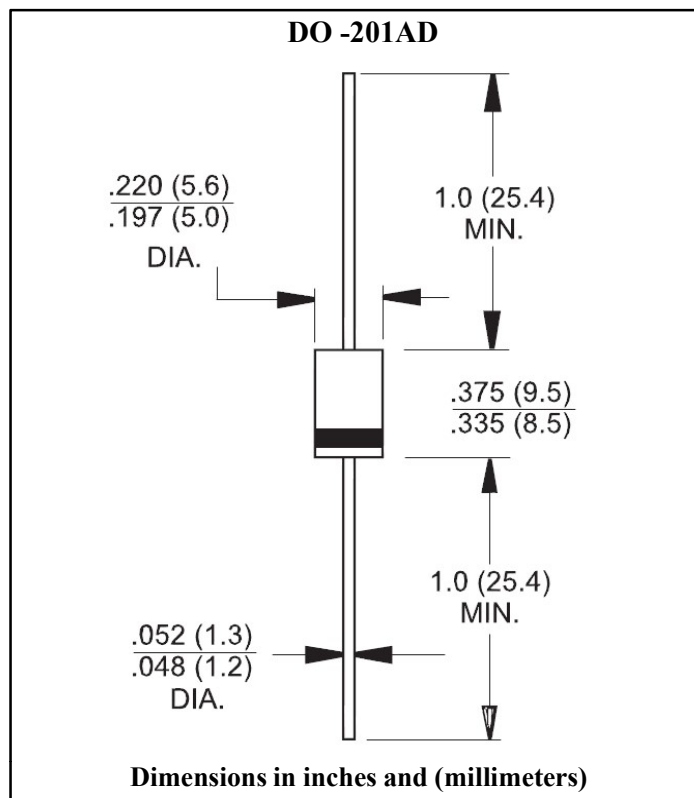
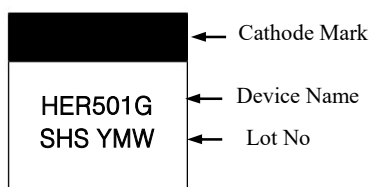
**Features**

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

**Mechanical Data**

- Case : Molded plastic DO-201AD
- Epoxy : UL 94V-O rate flame retardant
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- High temperature soldering guaranteed : 260°C/10 seconds/0.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Mounting position : Any
- Weight : 1.65 grams

**Marking**



**Maximum Ratings & Electrical Characteristics**

Ratings 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%

Parameter	Symbol	HER 501G	HER 502G	HER 503G	HER 504G	HER 505G	HER 506G	HER 507G	HER 508G	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	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)	$I_{FSM}$	200								A	
Maximum Instantaneous Forward Voltage at 5.0A	$V_F$	1.0		1.3		1.7				V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10								uA	Ta=25°C
		200									Ta=125°C
Maximum Reverse Recovery Time	$t_{rr}$	50				75				ns	Note 1
Typical Junction Capacitance	$C_J$	100				65				pF	Note 2
Typical Thermal Resistance	$R_{th(j-a)}$	40								°C/W	Note 3
Operation Junction Temperature Range	$T_J$	-65 to +150								°C	
Storage Temperature Range	$T_{STG}$	-65 to +150								°C	

Note 1. Reverse Recovery Time Test Conditions :  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$

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

Note 3. Mount on Cu-Pad Size 16mm × 16mm on P.C.B



Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

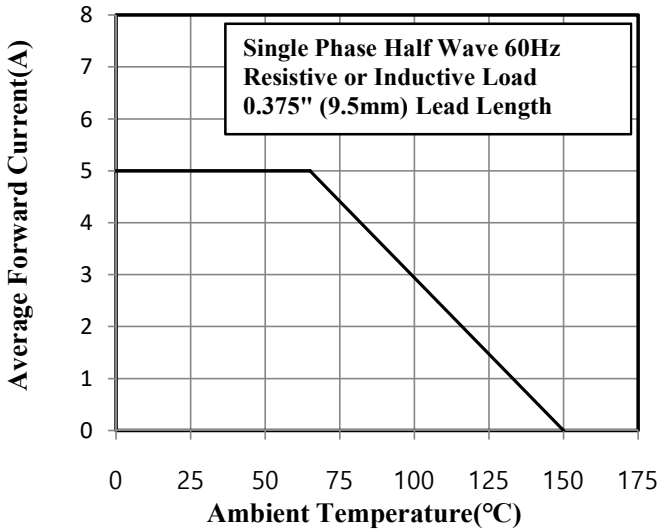


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

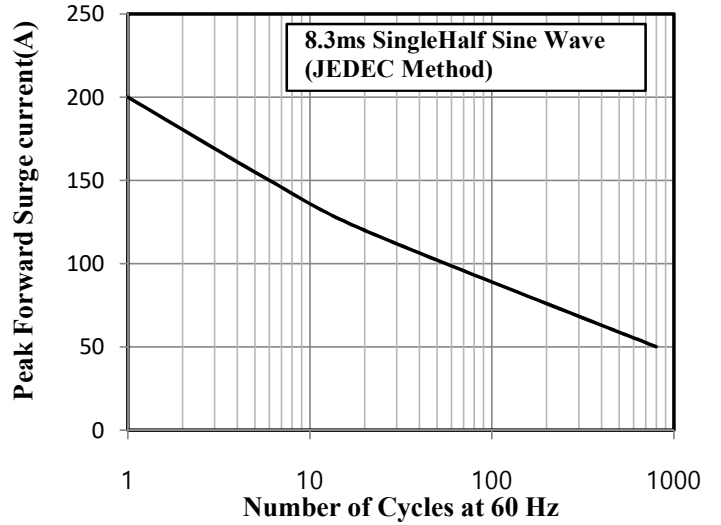


Fig.3 Typical Instantaneous Forward Characteristics

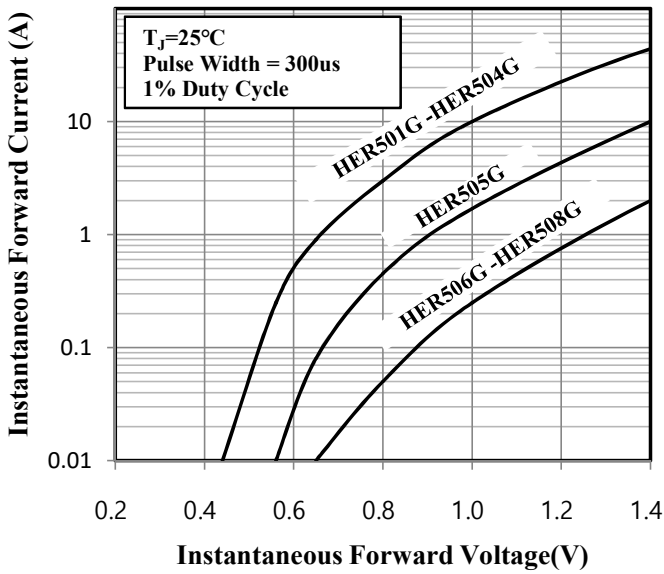


Fig.4 Typical Junction Capacitance

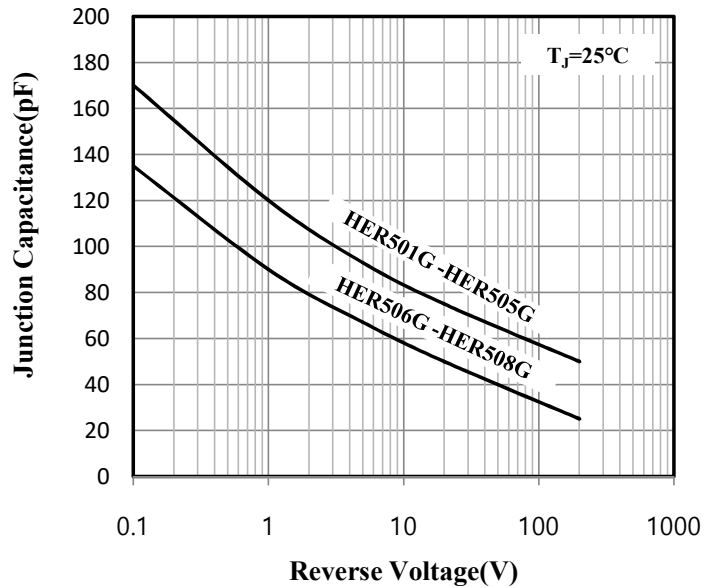


Fig.5 Typical Reverse Characteristics

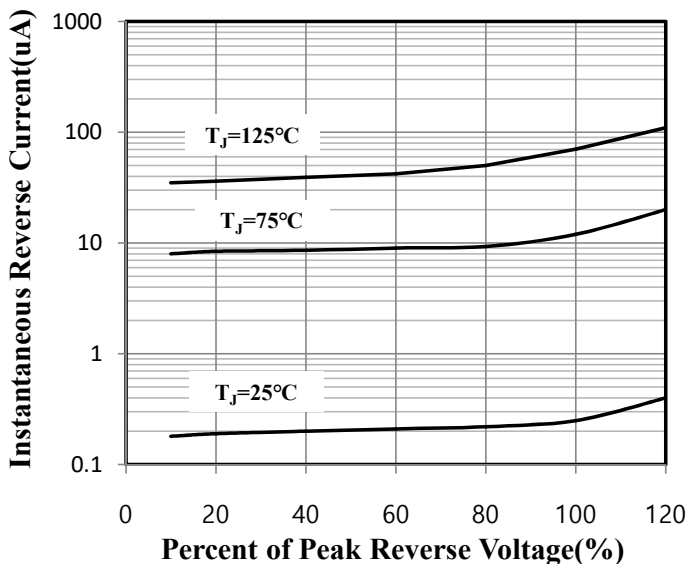


Fig. 6 Reverse Recovery Time Characteristic and Test Circuit Diagram

