

# HER101 thru HER108

## 1.0 A High Efficiency Rectifier

Rectifier Reverse Voltage 50 to 1000V

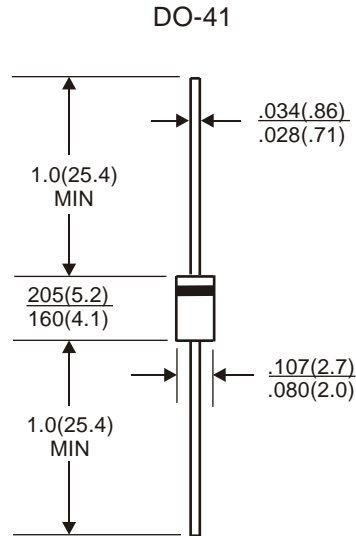


### Features

- Diffused junction
- Fast switching for high efficiency
- High current capability and low Forward Voltage Drop
- Surge overload rating to 30A peak
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

### Mechanical Data

Case: Molded plastic  
 Terminals: Solder plated solderable per MIL-STD-202, Method 208  
 Polarity: Cathode band  
 Mounting Position: Any  
 Weight: 0.3 grams (approx)



All dimensions inches and (millimeters)

### Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
 For Capacitive load derate current by 20%.

Parameter	Symbol	HER 101	HER 102	HER 103	HER 104	HER 105	HER 106	HER 107	HER 108	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	300	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	210	280	420	560	700	v
Maximum DC blocking voltage	VDC	50	100	200	300	400	600	800	1000	v
Maximum average forward rectified output current at TA=55°C	IF(AV)	1.0								A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	30								A
Maximum reverse recovery time TJ=25°C	Trr	50				75				nS
Typical thermal resistance per element	ReJA	50								°C/W
Typical junction capacitance per element	Cj	20				15				pF
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150								°C

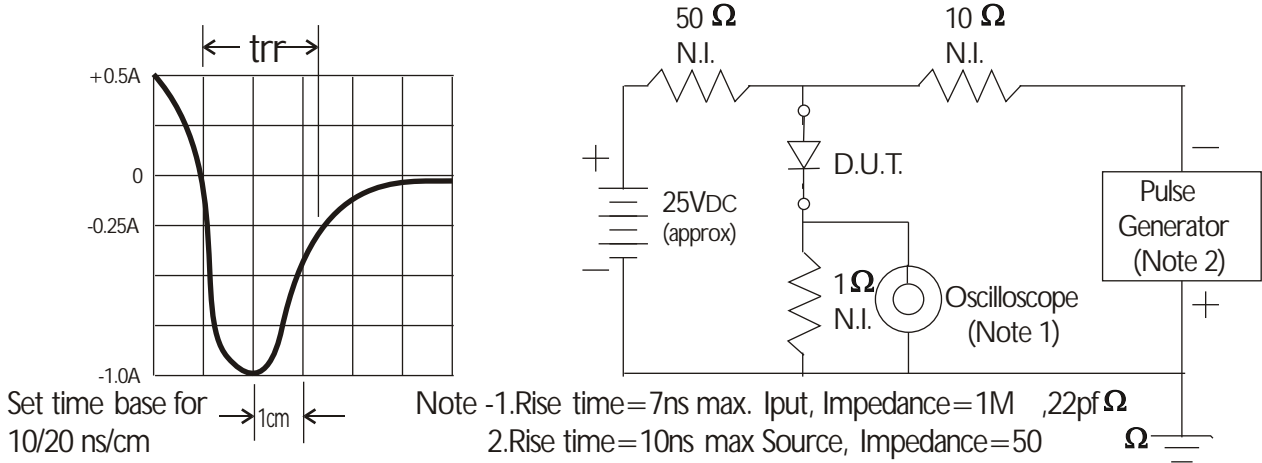
### Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
 For Capacitive load derate by 20 %.

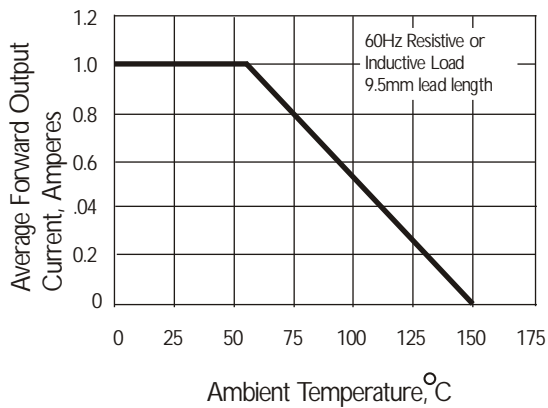
Parameter	Symbol	HER 101	HER 102	HER 103	HER 104	HER 105	HER 106	HER 107	HER 108	Unit	
Maximum instantaneous forward voltage drop per leg at 1.0A	VF	1.0			1.3		1.85			v	
Maximum DC reverse current at rated DC blocking voltage per element	IR	5				50					μA
		TA =25°C				TA =125°C					

# Rating and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ Unless otherwise noted ) HER101 thru HER108

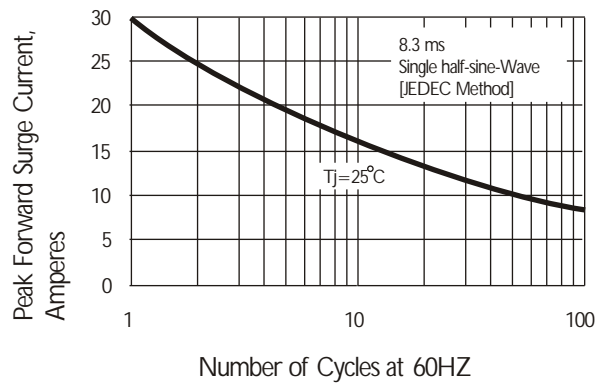
**Fig. 1 Reverse Recovery Time and Test Circuit Diagram**



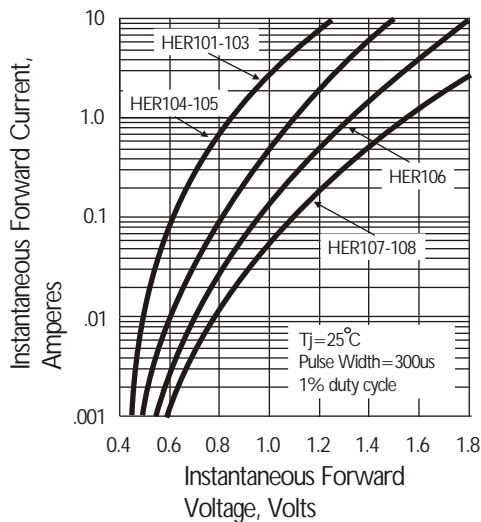
**Fig. 2 Derating Curve for Output Rectified Current**



**Fig. 3 Peak Forward Surge Current**



**Fig. 4 Typical Instantaneous Forward Characteristics**



**Fig. 5 Typical Junction Capacitance**

