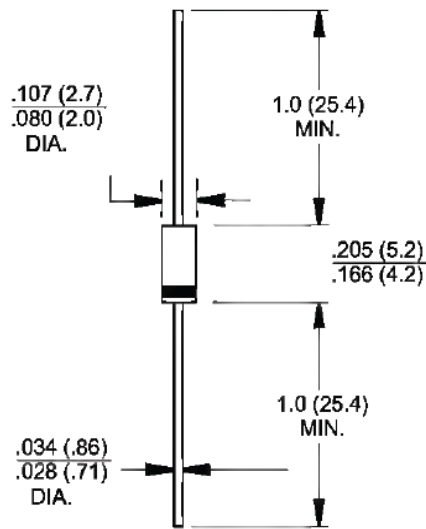


**DO-41**



**Features**

- ◇ High efficiency, Low VF
- ◇ High current capability
- ◇ High reliability
- ◇ High surge current capability
- ◇ Low power loss
- ◇ Green compound with suffix "G" on packing code & prefix "G" on datecode

**Mechanical Data**

- ◇ Case: 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/10s / .375", (9.5mm) lead lengths at 5 lbs, (2.3kg) tension
- ◇ Weight: 0.34 grams

**Dimensions in inches and (millimeters)**

**Marking Diagram**



- HER10X = 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	Symbo l	HER 101	HER 102	HER 103	HER 104	HER 105	HER 106	HER 107	HER 108	Unit	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ T <sub>A</sub> =55°C	I <sub>F(AV)</sub>	1								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	30								A	
Maximum Instantaneous Forward Voltage (Note 1) @ 1 A	V <sub>F</sub>	1.0			1.3		1.7			V	
Maximum Reverse Current @ Rated VR T <sub>A</sub> =25 °C T <sub>A</sub> =125 °C	I <sub>R</sub>	5					150				uA
Maximum Reverse Recovery Time (Note 2)	T <sub>rr</sub>	50				75				nS	
Typical Junction Capacitance (Note 3)	C <sub>j</sub>	25				20				pF	
Typical Thermal Resistance (Note 4)	R <sub>θjA</sub> R <sub>θjC</sub> R <sub>θjL</sub>	70				15				°C/W	
Operating Temperature Range	T <sub>J</sub>	- 65 to + 150								°C	
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 150								°C	

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

Note 2: Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Note 4: Mount on Cu-Pad Size 16mm x 16mm on PCB

## RATINGS AND CHARACTERISTIC CURVES (HER101 THRU HER108)

FIG.1 FORWARD CURRENT DERATING CURVE

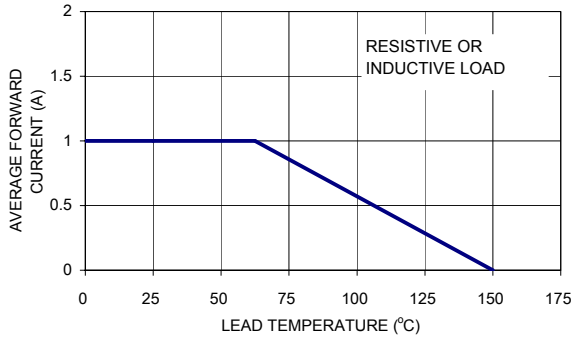


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

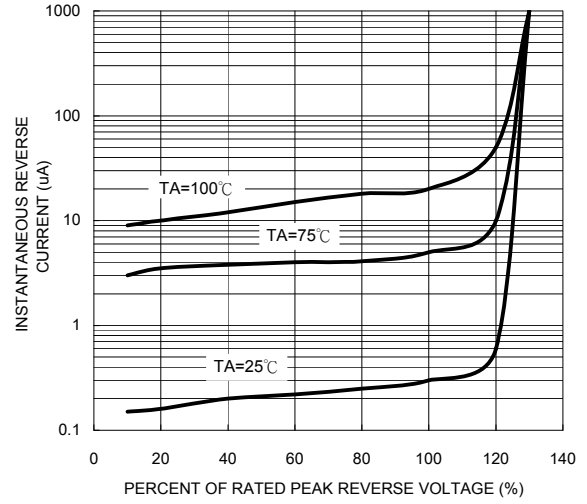


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

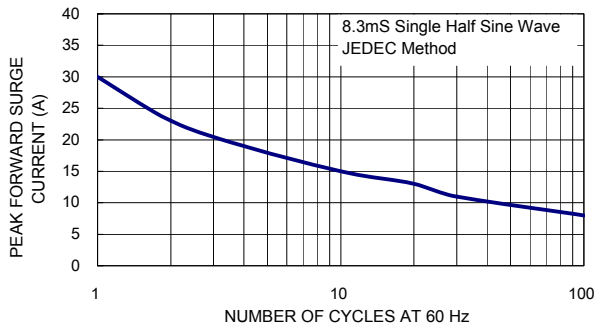


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

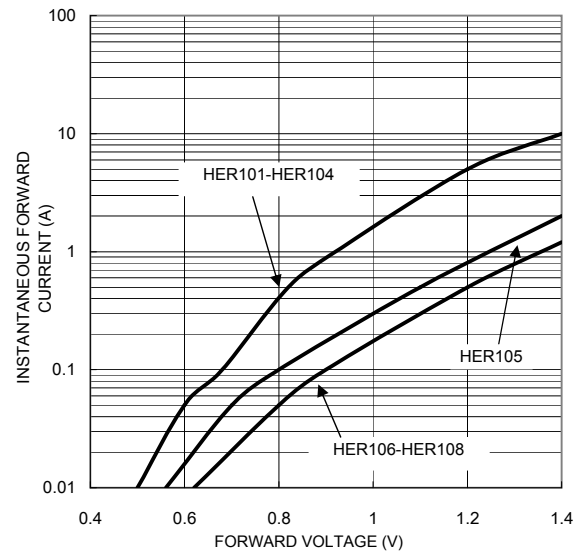


FIG. 4 TYPICAL JUNCTION CAPACITANCE

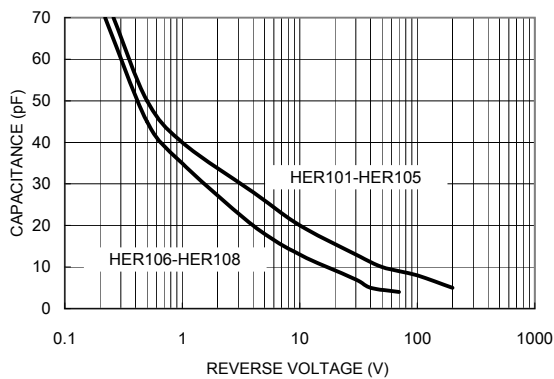


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

