

## 1.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

<b>A-405</b> 	<b>Voltage</b> 200 to 1000 V <div style="background-color: red; width: 100px; height: 20px; margin-top: 10px; position: relative;"> <span style="color: white; font-weight: bold; position: absolute; left: 0; top: 0;">HYPERRECTIFIER</span> <span style="color: white; font-weight: bold; position: absolute; right: 0; top: 0;">®</span> </div>	<b>Current</b> 1.0 A
<b>FEATURES</b> <ul style="list-style-type: none"> <li>Ultrafast recovery time for high efficiency</li> <li>Low power losses</li> <li>Low forward voltage drop</li> <li>High forward surge current capability</li> <li>Solder dip 260°C, 10s</li> <li>AEC-Q101 qualified</li> <li>Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC</li> <li>Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C</li> </ul>		
  <b>RoHS</b> COMPLIANT		
<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li><b>Case:</b> A-405. Epoxy meets UL 94V-0 flammability rating.</li> <li><b>Polarity:</b> Color band denotes cathode end.</li> <li><b>Terminals:</b> Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JEDEC 201 class 1A whisker test.</li> </ul>		
<b>TYPICAL APPLICATIONS</b> Used in high frequency rectifier of switching mode power supplies, inverters, freewheeling diodes, dc-to-dc converters, and other power switching application.		

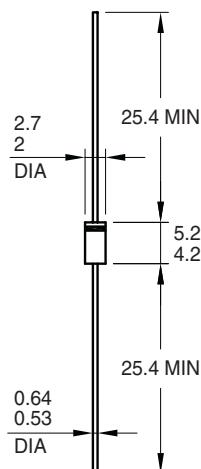
## Maximum Ratings and Electrical Characteristics at 25°C

		HER103SG	HER105SG	HER106SG	HER107SG	HER108SG			
	Marking Code	HER103SG	HER105SG	HER106SG	HER107SG	HER108SG			
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage (V)	200	400	600	800	1000			
$V_{RMS}$	Maximum RMS Voltage (V)	140	280	420	560	700			
$V_{DC}$	Maximum DC Blocking Voltage (V)	200	400	600	800	1000			
$I_{F(AV)}$	Maximum Average Forward Rectified Current 9.5mm Lead Length @ $T_A = 55^\circ C$	1.0 A							
$I_{FSM}$	Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	30 A							
$V_F$	Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	1.0 V	1.3 V	1.7 V					
$I_R$	Maximum DC Reverse Current @ $T_A = 25^\circ C$ at Rated DC Blocking Voltage @ $T_A = 125^\circ C$	5.0 $\mu A$ 150 $\mu A$							
$T_{rr}$	Maximum Reverse Recovery Time from $I_F = 0.5A$ ; $I_R = 1A$ ; $I_{RR} = 0.25A$	50 ns		75 ns					
$C_j$	Typical Junction Capacitance at 1 MHz and reverse voltage of 4V <sub>DC</sub>	20 pF		15 pF					
$R_{th(j-a)}$	Typical Thermal Resistance (Note 2)	90 °C/W							
$T_j$	Operating Temperature Range	-65 to + 150 °C							
$T_{stg}$	Storage Temperature Range	-65 to + 150 °C							

Notes: 1. Pulse Test: 300 $\mu$ s Pulse Width, 1% Duty Cycle  
 2. Mount on Cu-Pad size 5mm x 5mm on PCB.

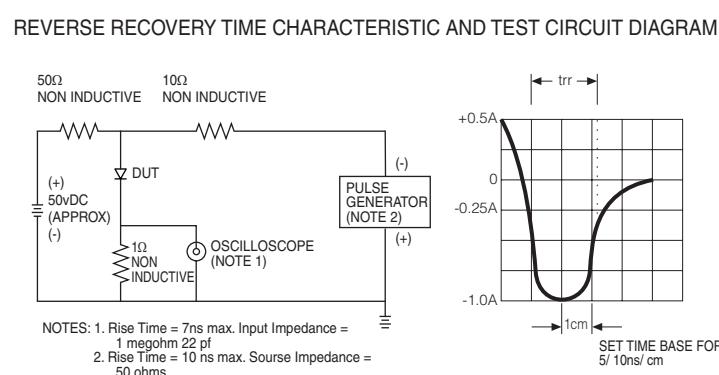
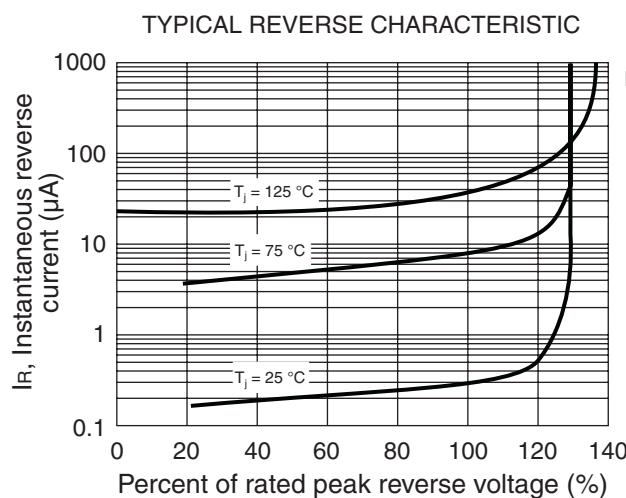
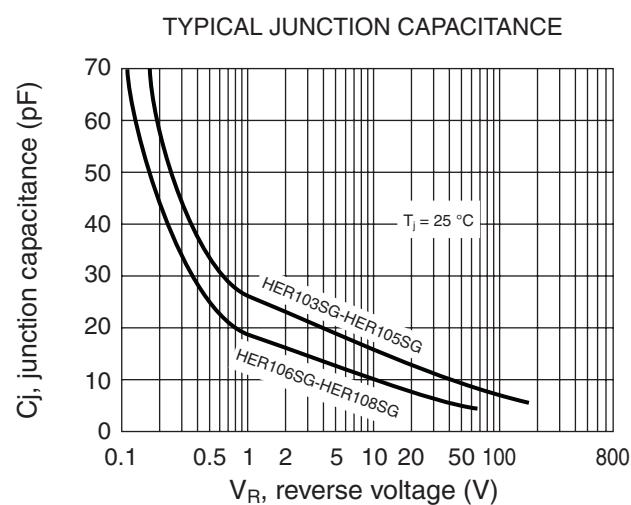
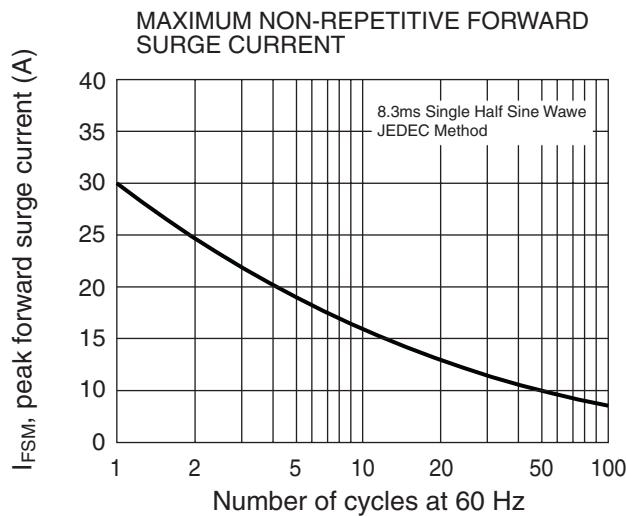
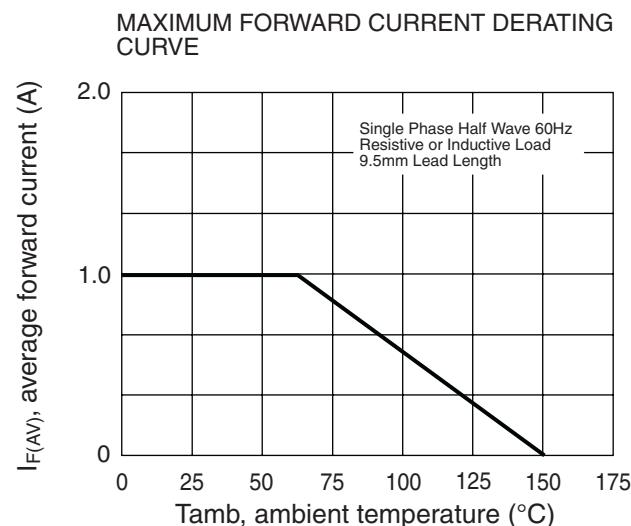
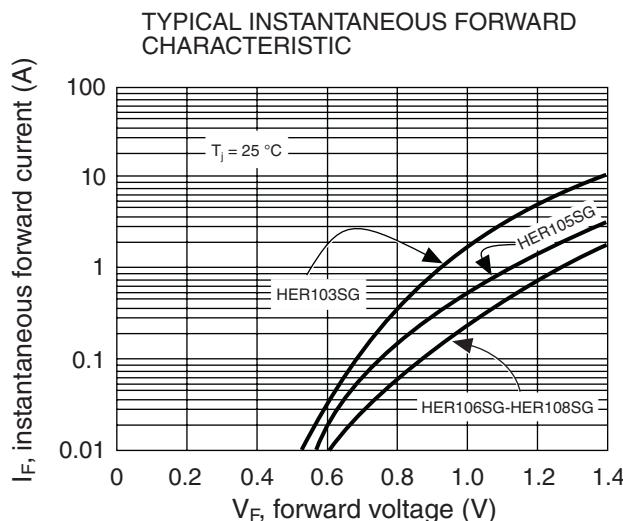
**1.0 Amp. Glass Passivated Ultrafast Recovery Rectifier**
**Ordering information**

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
HER105SG AMP	AMP	AMMO BOX	3,000	0.22
HER105SG TR	TR	14" diameter tape and reel	5,000	0.22

**Package Outline Dimensions: (mm) A-405**


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



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### Disclaimer

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