


1.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

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

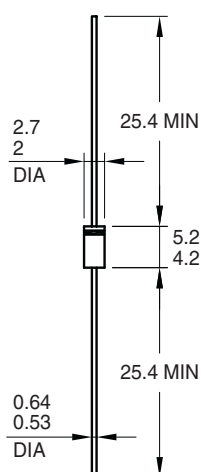
Maximun Ratings and Electrical Characteristics at 25°C

		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 °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 °C at Rated DC Blocking Voltage @ T _A = 125 °C	5.0 μA 150 μA				
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 _{DC}	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 μs Pulse Width, 1% Duty Cycle
2. Mount on Cu-Pad size 5mm x 5mm on PCB.

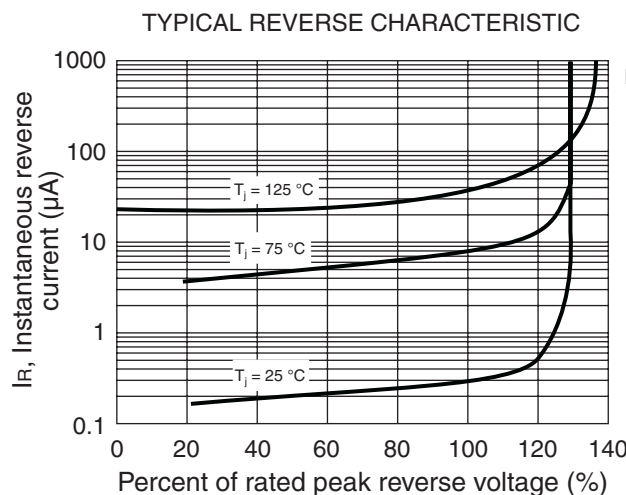
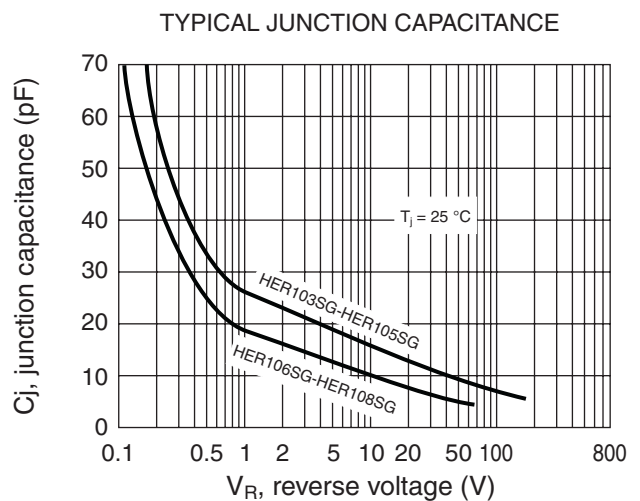
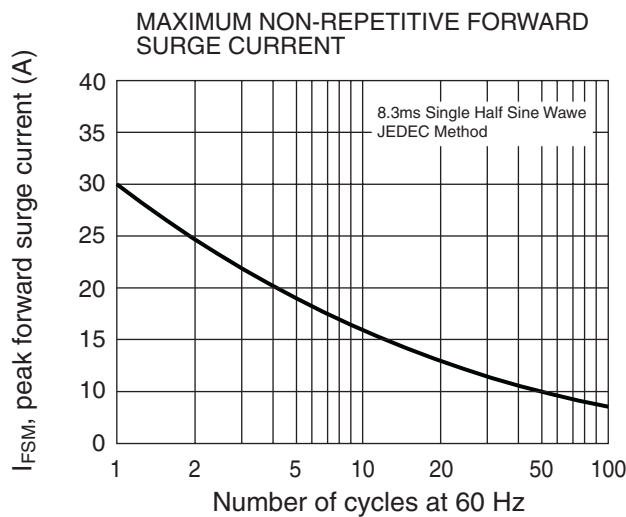
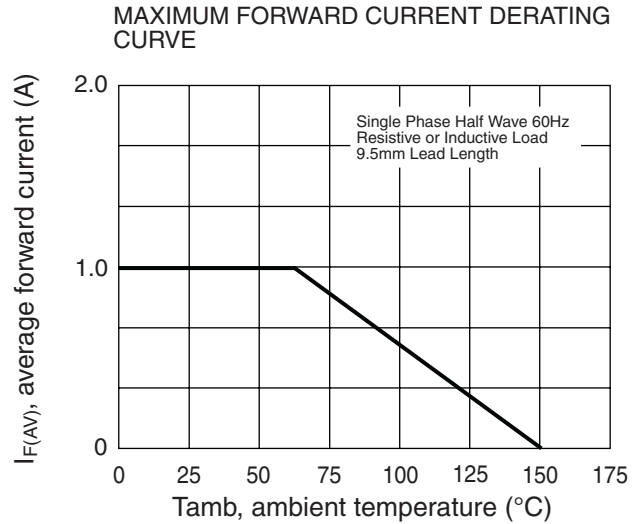
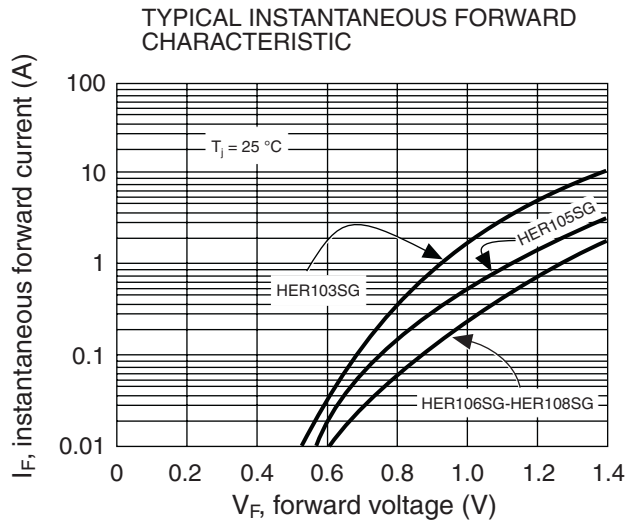
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Ordering information

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

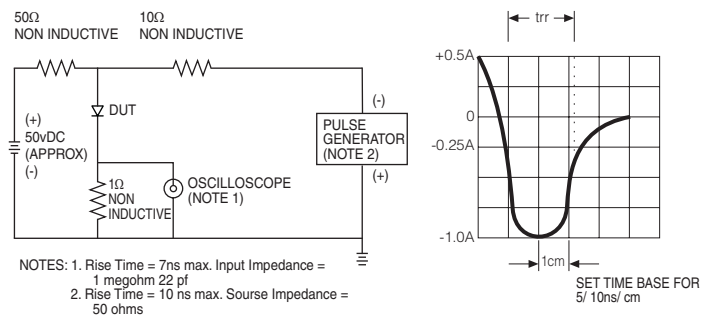
Package Outline Dimensions: (mm) A-405


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



REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



1.0 Amp. Glass Passivated Ultrafast Recovery Rectifier**Disclaimer**

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