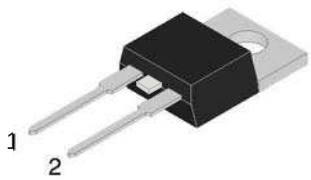
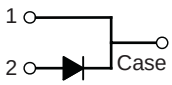
8.0 Amp. Glass Passivated Ultrafast Rectifiers

TO-220AC





Case Positive

Voltage	Current
50 to 1000 V	8.0 A

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

Mechanical Data

- Cases: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Terminals: Leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: As marked
- High temperature soldering guaranteed: 260 °C/10 seconds 4.06mm., from case.
- Weight: 2.24 grams

Absolute Maximum Ratings, according to IEC publication No. 134

		HERA803G	HERA805G	HERA806G	HERA808G
V_{RRM}	Peak Recurrent Peak Reverse Voltage (V)	200	400	600	1000
V_{RMS}	Maximum RMS Voltage (V)	140	280	420	700
V_{DC}	Maximum DC Blocking Voltage (V)	200	400	600	1000
$I_{F(AV)}$	Max. Average Forward Rectified Current 9.5mm Lead Lenght at T_C = 100 °C	8.0 A			
I_{FSM}	Peak Forward Surge Current 8.3 ms. single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	150 A			
T_{rr}	Maximum Reverse Recovery Time From I_F =0.5 A; I_R = 1 A; I_{RR} = 0.25 A	50 nS		80 nS	
C_j	Typical Junction Capacitance at 1MHz and reverse voltage of $4V_{DC}$	65 pF		55 pF	
T_j	Operating temperature range	– 65 to + 150 °C			
T_{stg}	Storage temperature range	– 65 to + 150 °C			

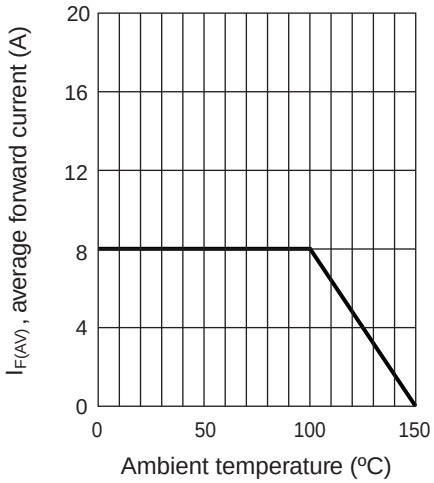
Electrical Characteristics

		HERA803G	HERA805G	HERA806G	HERA808G
V_F	Max. Instantaneous Forward Voltage @ 8.0 A	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	10.0 µA 400 µA			
R_{thj-C}	Typical Thermal Resistance (Note 1)	2.0 °C/W			

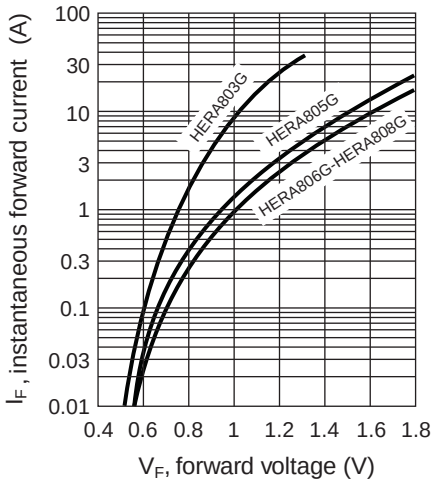
Note: 1. Mounted on Heatsink Size of 50.8 mm x 76.2 mm x 6.35 mm Al-Plate.

Rating And Characteristic Curves

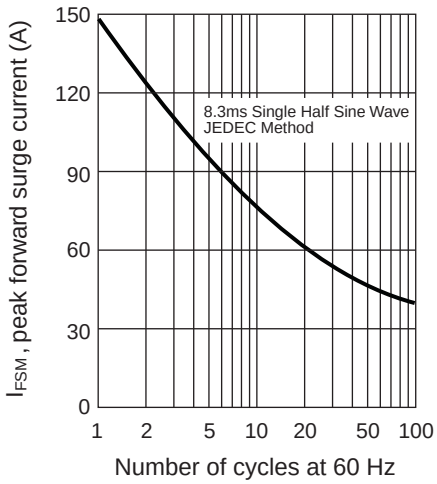
MAXIMUM FORWARD CURRENT DERATING CURVE



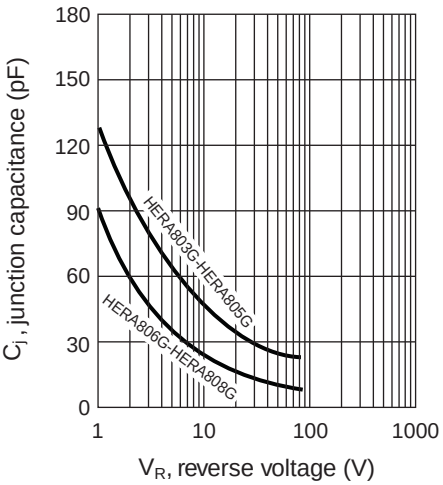
TYPICAL FORWARD CHARACTERISTICS



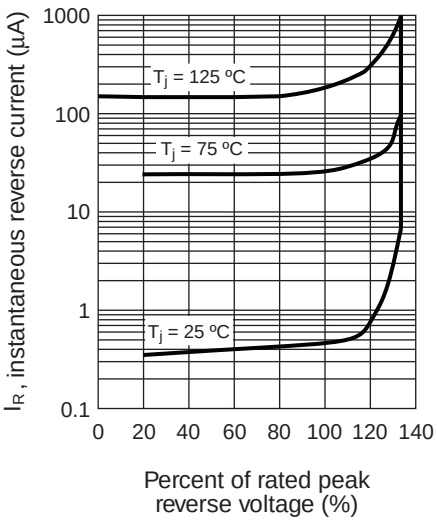
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



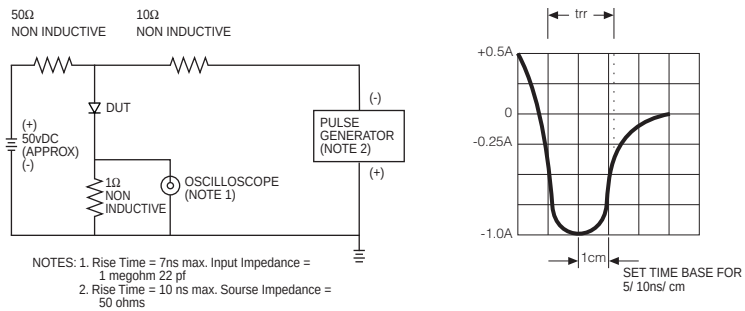
TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTICS

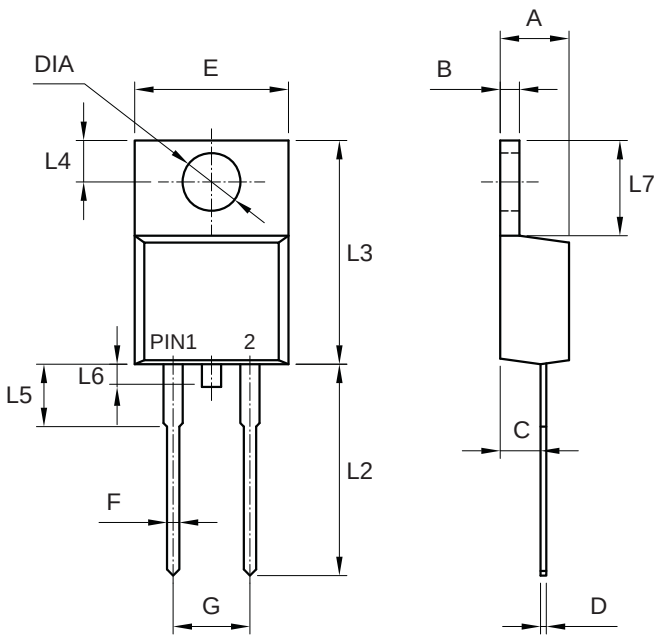


REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



8.0 Amp. Glass Passivated Ultrafast Rectifiers

PACKAGE MECHANICAL DATA TO-220AC



REF.	DIMENSIONS Milimeters	
	Min.	Max.
A	4.44	4.70
B	1.14	1.40
C	2.54	2.79
D	0.35	0.64
E	-	10.50
F	0.68	0.94
G	4.95	5.20
L2	13.46	14.22
L3	14.9	15.10
L4	2.62	2.87
L5	3.56	4.06
L6	-	1.60
L7	5.84	6.86
DIA	3.74	3.91