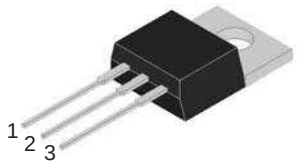
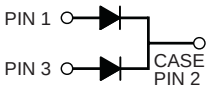
16.0 Amp. Glass Passivated Ultrafast Rectifiers

TO-220AB





Common Cathode
Suffix "C"

Voltage	Current
200 V to 1000 V	16.0 A

- Glass passivated chip junction.
- High efficiency, Low VF
- High current capability
- High reliability
- High surge current capability
- For use in low voltage, high frequency inventor, free wheeling, and polarity protection application.

MECHANICAL DATA

- Cases: TO-220AB Molded plastic
- Epoxy: UL 94V0 rate flame retardant
- Terminals: Pure tin plated, lead free, 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

		HER 1603G	HER 1605G	HER 1606G	HER 1607G	HER 1608G
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 @ T_c = 100 °C	16 A				
I_{FSM}	Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	125 A				
T_{rr}	Maximum Reverse Recovery Time from I_F = 0.5A; I_R = 1A; I_{RR} = 0.25A	50 nS		80 nS		
C_j	Typical Junction Capacitance at 1 MHz and reverse voltage of 4V_{DC}	80 pF		50 pF		
T_j	Operating Temperature Range	-65 to +150 °C				
T_{stg}	Storage Temperature Range	-65 to +150 °C				

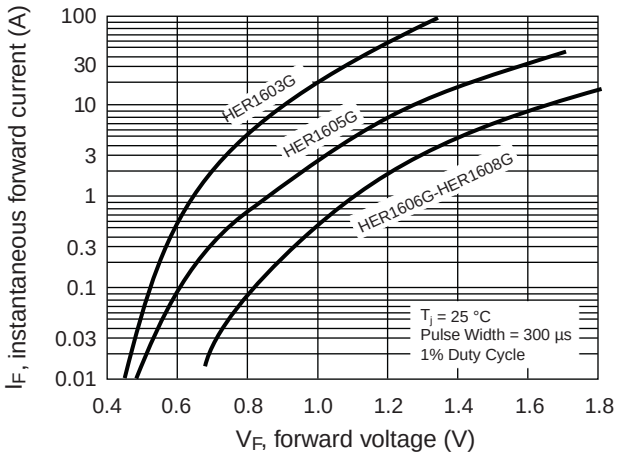
Electrical Characteristics

V_F	Maximum 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 µA 400 µA		
R_{thj-c}	Typical Thermal Resistance (See note)	1.5 °C/W		

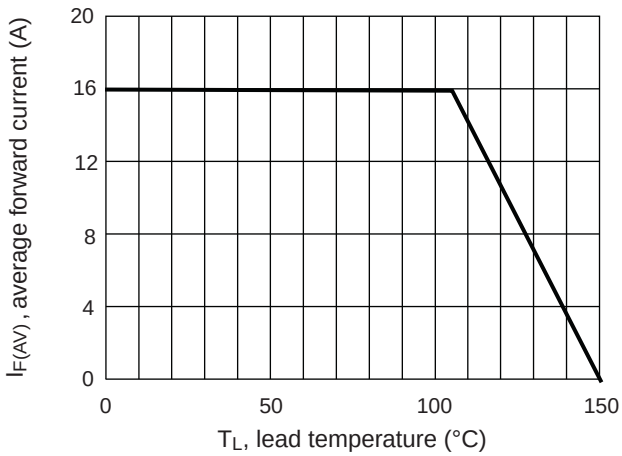
NOTE: Mounted on Heatsink Size of 4 in x 6 in x 0.25 Al-Plate.

Rating And Charasterictic Curves

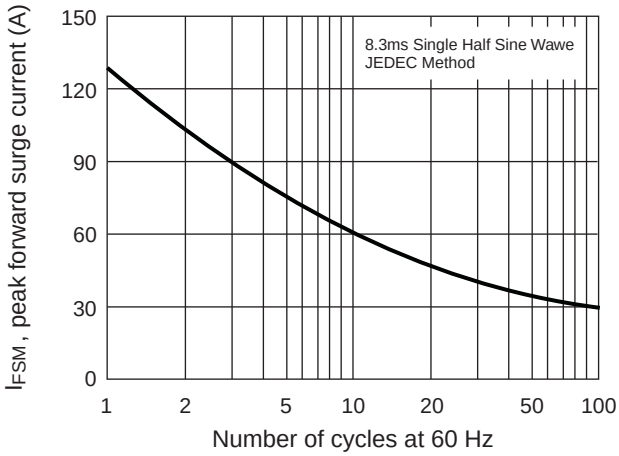
TYPICAL FORWARD CHARACTERISTICS



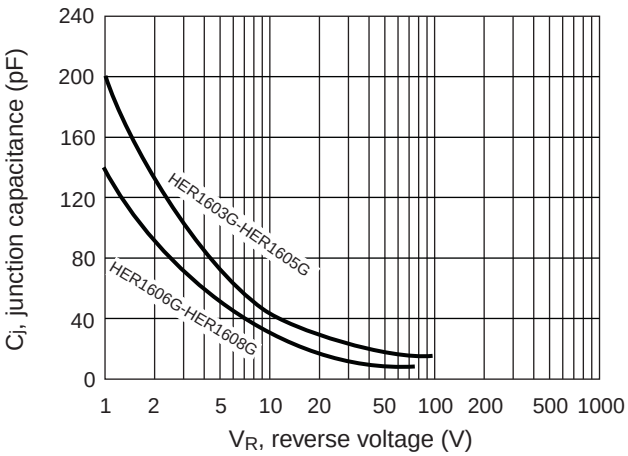
MAXIMUM FORWARD CURRENT DERATING CURVE



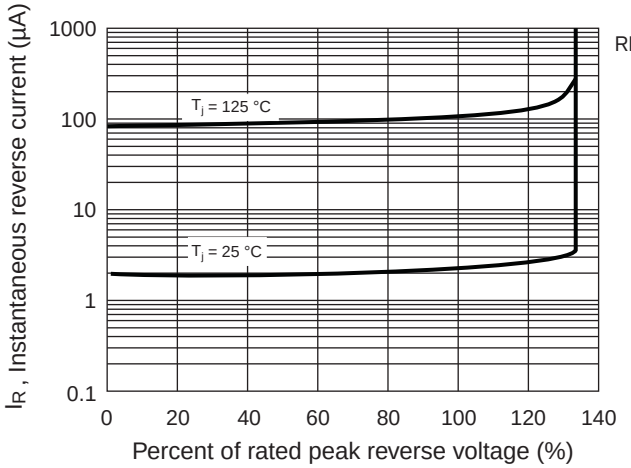
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



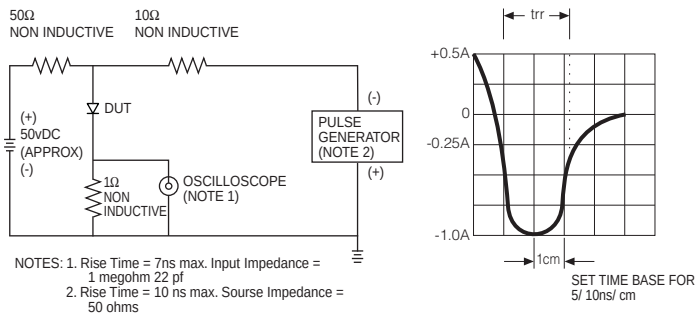
TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTICS



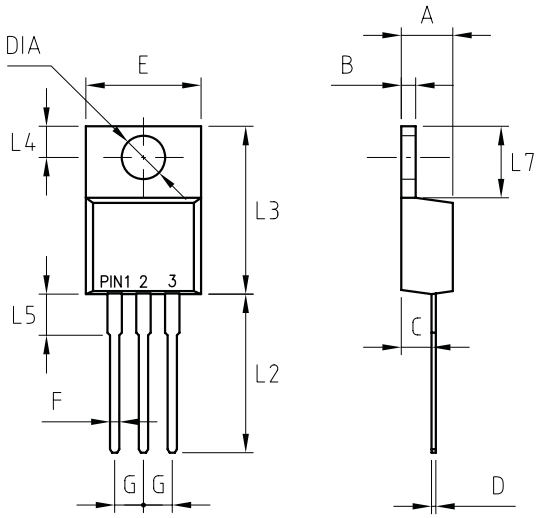
REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm 22 pf
2. Rise Time = 10 ns max. Sourse Impedance = 50 ohms

10.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

PACKAGE MECHANICAL DATA TO-220AB



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	--	10.5
F	0.68	0.94
G	2.41	2.67
L2	13.46	14.22
L3	14.90	15.10
L4	2.62	2.87
L5	3.56	4.06
L7	5.84	6.86
DIA	3.74	3.91