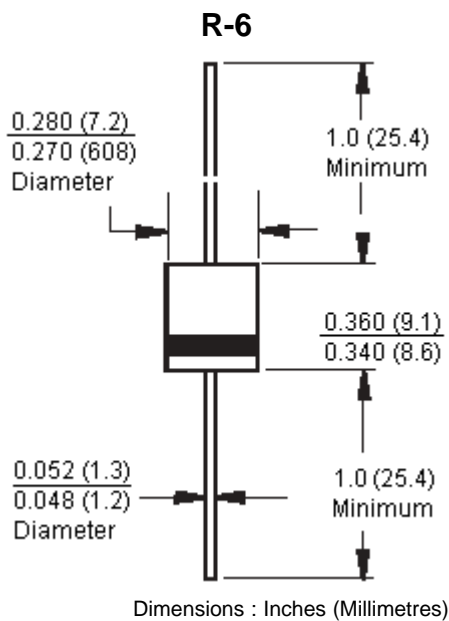




Features:

- High efficiency, Low V_F .
- High current capability.
- High reliability.
- High surge current capability.
- For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.



Mechanical Data:

Cases	: Moulded plastic.
Lead	: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed.
Polarity	: Colour band denotes cathode end.
High temperature soldering guaranteed	: 260°C/10 seconds/0.375 inch, (9.5mm) lead lengths at 5lbs., (2.3kg) tension.
Weight	: 1.65 grams.

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Type Number	Symbol	HER601	HER602	HER603	HER604	HER605	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	
Maximum Average Forward Rectified Current 0.375 (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	6.0					A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	200					
Maximum Instantaneous Forward Voltage at 6.0A	V_F	1.0				1.3	V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	I_R	10 250					μA μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	50					nS
Typical Junction Capacitance (Note 2)	C_j	130					pF
Maximum Thermal Resistance	$R_{\theta JA}$	30					$^\circ\text{C/W}$
Operating Temperature Range	T_J	-65 to +150					$^\circ\text{C}$
Storage Temperature Range	T_{STG}						

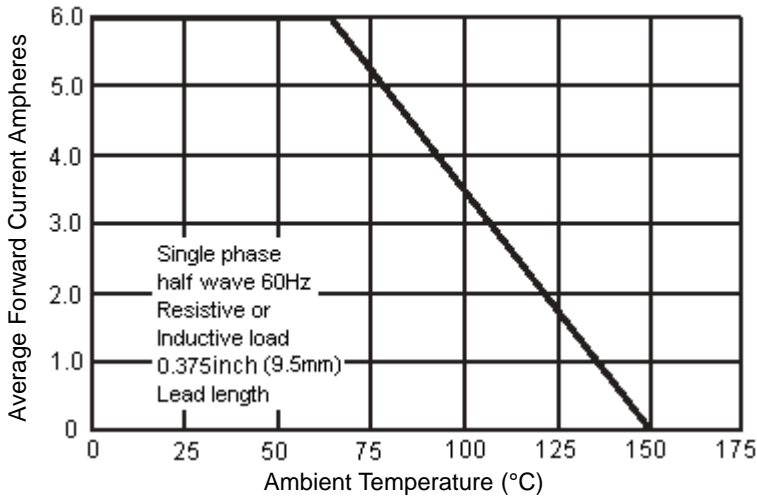
Notes: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.

2. Measured at 1MHz and Applied Reverse Voltage of 4.0V dc.

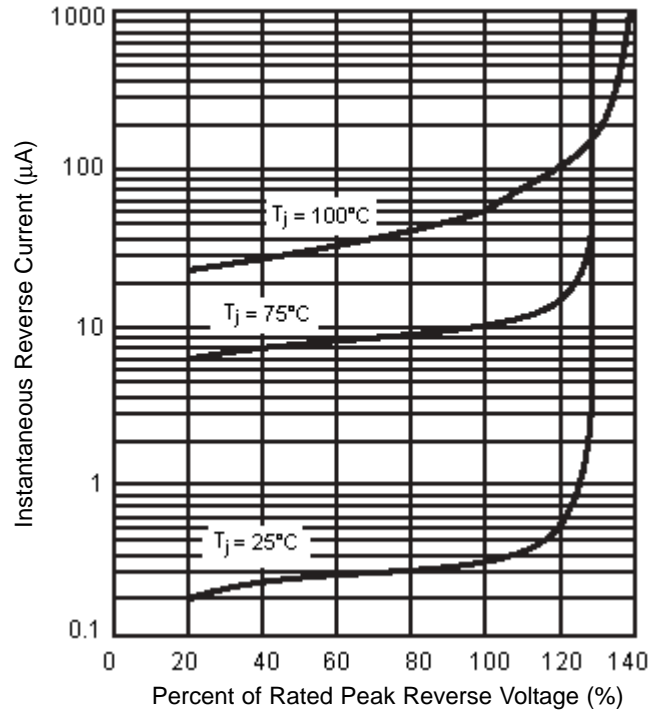
3. Mount on Cu-Pad Size 16mm x 16mm on PCB.

Ratings and Characteristic Curves (HER601 thru HER605)

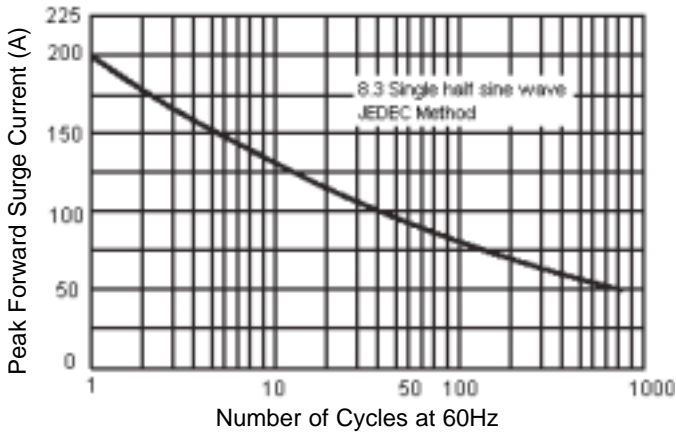
Maximum Forward Current Derating Curve



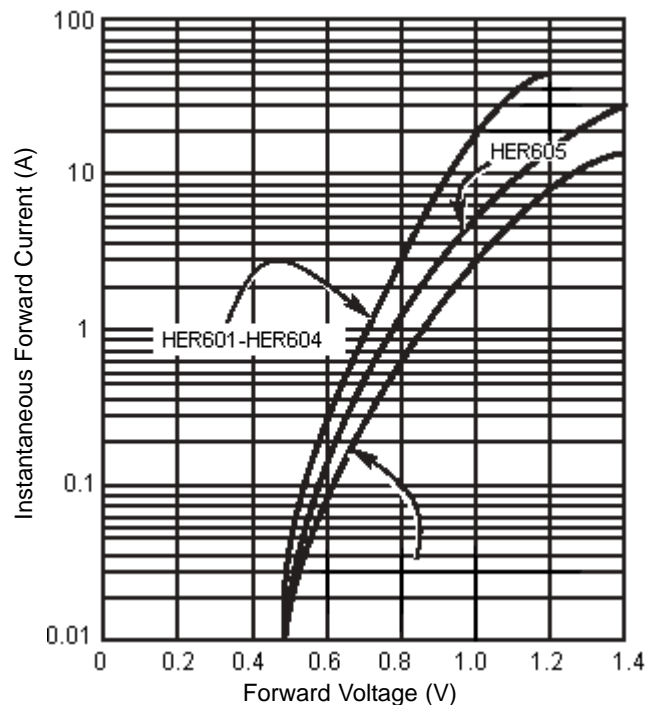
Typical Reverse Characteristics



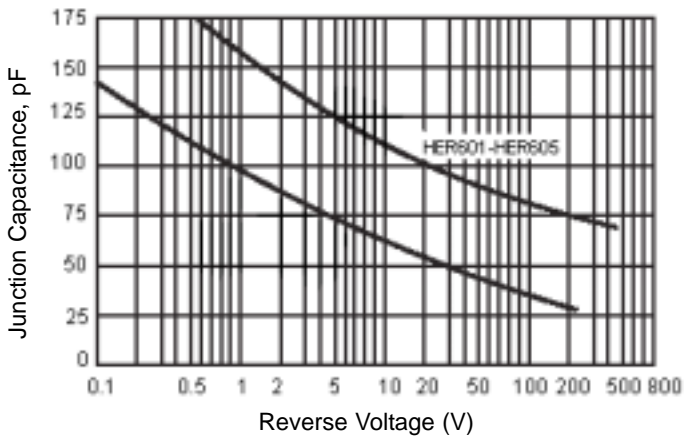
Maximum Non-Repetitive Forward Surge Current



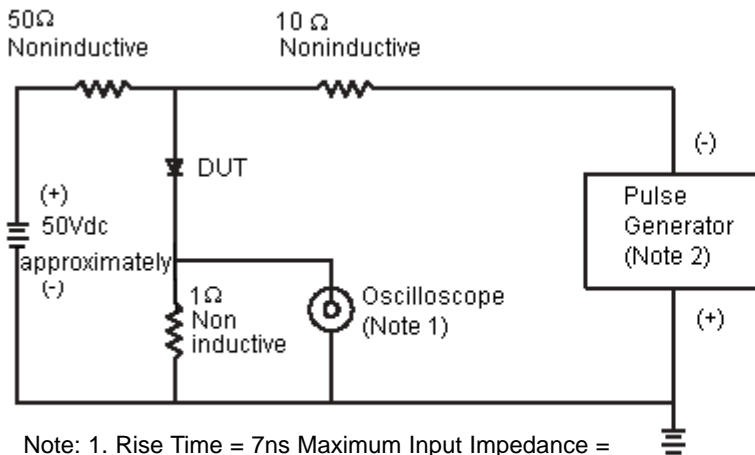
Typical Instantaneous Forward Characteristics



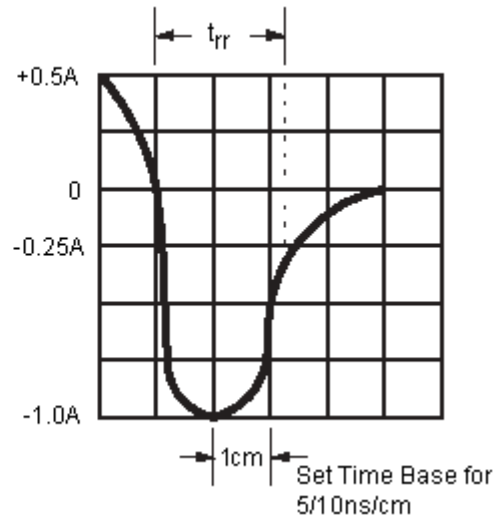
Typical Junction Capacitance



Reverse Recovery Time Characteristic and Test Circuit Diagram



- Note: 1. Rise Time = 7ns Maximum Input Impedance = 1 megohm 22pf
 2. Rise Time = 10ns Maximum Source Impedance = 50 ohms



Part Number Table

Description	Part Number
Diode, Fast, 6A, 50V	HER601
Diode, Fast, 6A, 100V	HER602
Diode, Fast, 6A, 200V	HER603
Diode, Fast, 6A, 300V	HER604
Diode, Fast, 6A, 400V	HER605

HER60x Series



Notes:

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