



High Efficiency (Ultra Fast) Rectifiers

Reverse Voltage - 50 to 1000 Volts
Forward Current - 3.0 Ampere

Features

- Low cost
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

Mechanical Data

- Case: JEDEC DO-27 Molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

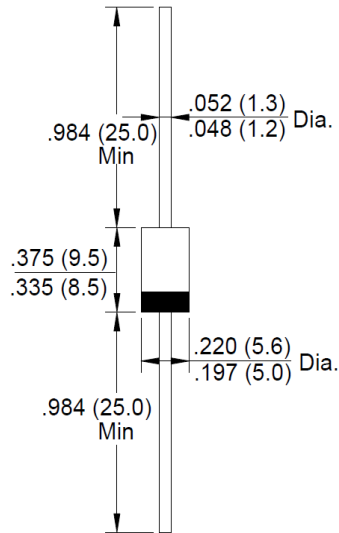
Applications

- For use in SMPS, high frequency inverters, PWM and polarity protection applications

DO-27



RoHS
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

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%.

Characteristics	Symbol	HER301	HER302	HER303	HER304	HER305	HER306	HER307	HER308	Unit
		UF3001	UF3002	UF3003	UF3004	UF3005	UF3006	UF3007	UF3008	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current @T _A =55 °C	I(AV)	3.0								A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150								A
Peak Forward Voltage at 3.0 A DC	V _F	1.0		1.3		1.7			V	
Maximum DC Reverse Current at Rated @T _J =25°C	I _R	5.0								µA
DC Blocking Voltage @T _J =100°C		100								
Maximum Reverse Recovery Time (Note 1)	T _{RR}	50					75			nS
Typical Junction Capacitance (Note2)	C _J	50					30			pF
Typical Thermal Resistance Junction to Ambient	R _{θJA}	20								°C/W
Operating Junction Temperature Range	T _J	-55 to +150								°C
Storage Temperature Range	T _{STG}	-55 to +150								°C

Notes:1.Measured with I_F=0.5A,I_R=1A,IRR=0.25A.

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3.The typical data above is for reference only.



Fig. 1 - Forward Current Derating Curve

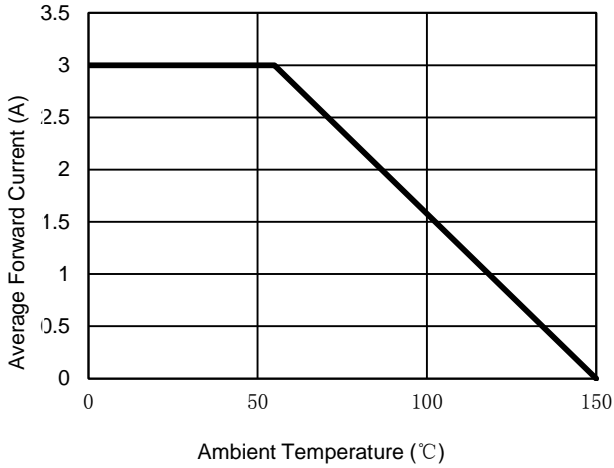


Fig. 2 - Maximum Non-Repetitive Surge Current

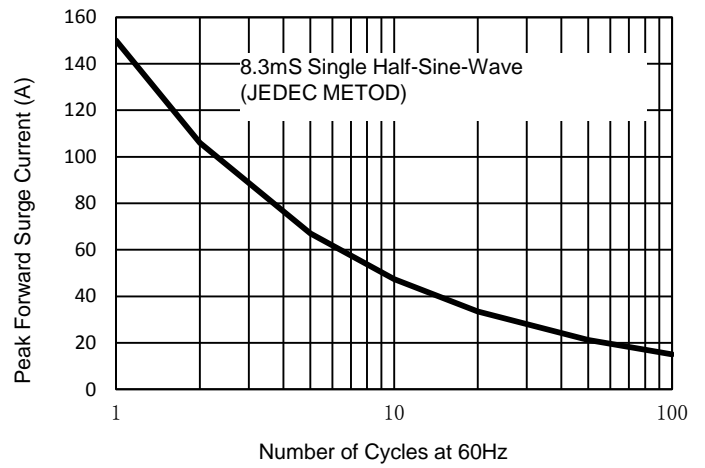


Fig. 3 - Typical Junction Capacitance

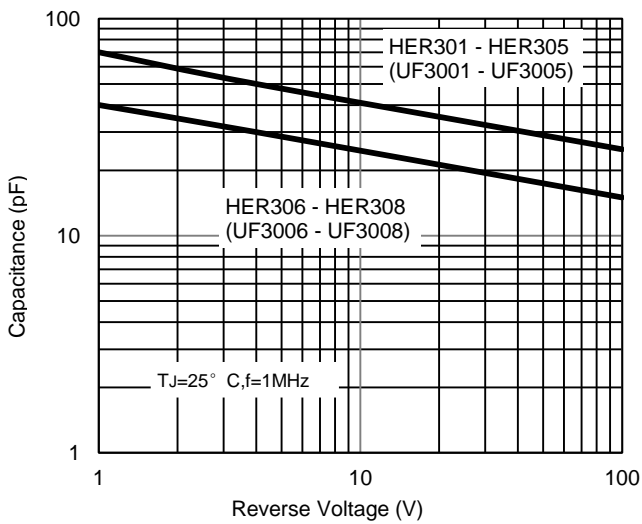


Fig. 4 - Typical Forward Characteristics

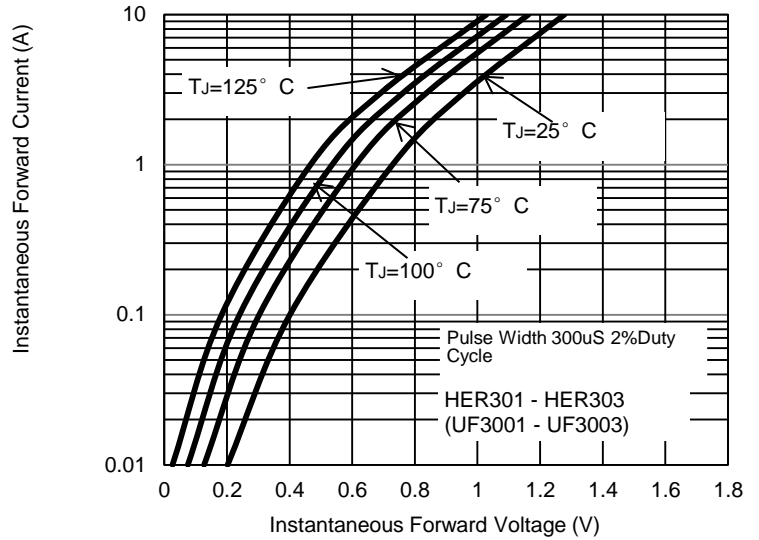


Fig. 5 - Typical Forward Characteristics

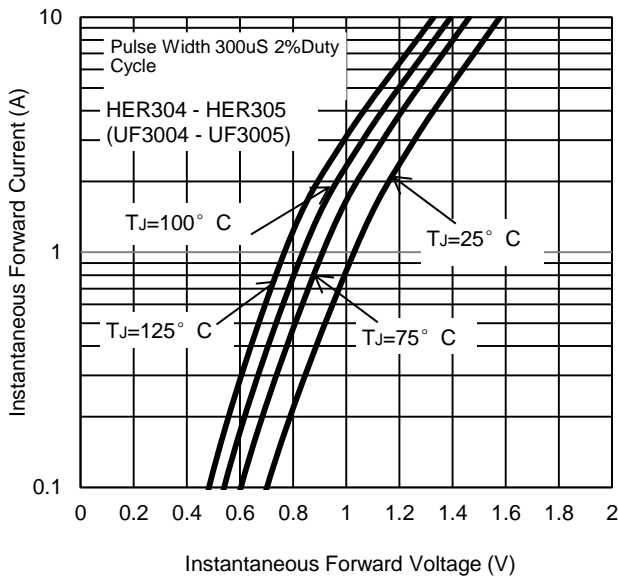
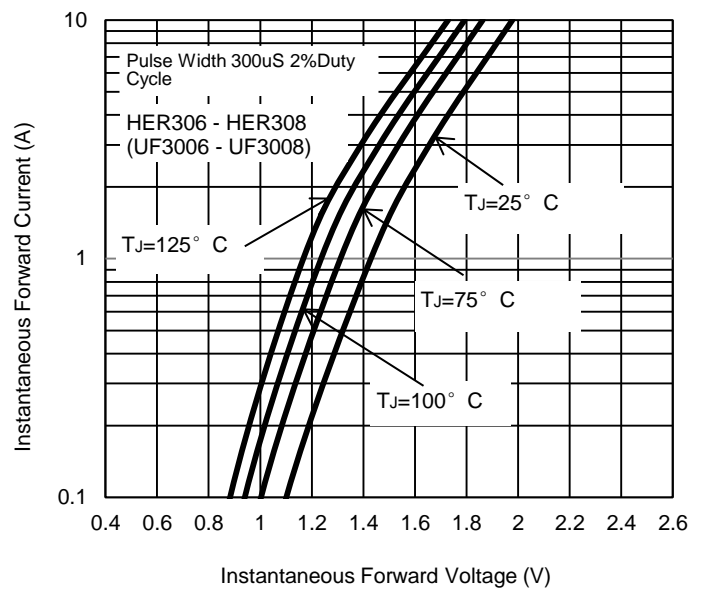


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.



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