

# HER1601C - HER1607C

Voltage Range - 50 to 800 V

Forward Current - 16 Ampere

## **HIGH EFFICIENCY GLASS PASSIVATED RECTIFIER**

### **FEATURES**

- High speed switching
- Glass passivated chip junction
- Low power loss, high efficiency
- Low leakage
- High surge capacity
- High temperature soldering guaranteed
- 250°C/10 second, 0.16" (4.06mm)lead length
- Also available with common Anode, add an "A" suffix, i.e. HER1601CA, and as a doubler, add a "D" suffix, i.e. HER1601CD
- Also available in an isolated package, HERF1601C
- Also available in the single chip version, HER1601



### **MECHANICAL DATA**

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-202E method 208C
- Polarity: as Marked
- Mounting position: Any, 5 in-lbs Torque Max
- Weight: 0.08 ounce, 2.24 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

 Ratings at 25°C ambient temperature unless otherwise specified Single Phase, half wave, 60Hz, resistive or inductive load For capacitive load derate current by 20%

PARAMETER		SYMBOLS	HER 1601C	HER 1602C	HER 1603C	HER 1604C	HER 1605C	HER 1606C	HER 1607C	UNITS
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	300	400	600	800	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	35	70	140	210	280	420	560	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	300	400	600	800	Volts
Maximum Average Forward Rectified Current At Tc=100°C		I <sub>(AV)</sub>	16.0							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	125							Amps
Maximum Instantaneous Forward Voltage at 8.0A		V <sub>F</sub>	1.0 1.3			1.5	1.7	Volts		
Maximum DC Reverse Current at rated DC Blocking Voltage at	$T_A = 25 \degree C$ $T_A = 125 \degree C$	- I <sub>R</sub>	10 500						μA	
Maximum Reverse Recovery Time Test conditions $l_F=0.5A$ , $l_R=1.0A$ , $l_{RR}=0.25A$		t <sub>rr</sub>	70 100						00	nS
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)		C <sub>J</sub>	40							pF
Typical Thermal Resistance (NOTE 1)		$R_{\theta JC}$	2.5							°C/W
Operating Junction Temperature		T <sub>J</sub>	(-55 to +150)							°C
Storage Temperature Range		T <sub>STG</sub>	(-55 to +150)							°C

#### Notes:

1. Unit mounted on heatsink

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# **RATING AND CHARACTERISTIC CURVES HER1601C - HER1607C**













REVERSE VOLTAGE,(%)





#### Disclaimer

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Email: sales@micindia.com

Website: www.micindia.com