



YENYO

# HFR20A06

Glass Passivated Hyperfast Recovery Rectifier

## Features

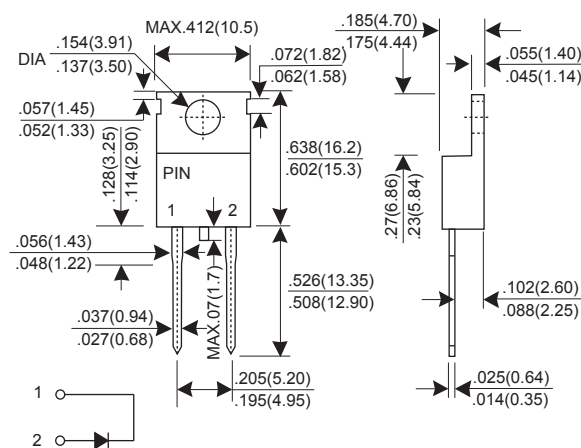
- ★ Fast switching for high efficiency
- ★ Low noise
- ★ Low reverse leakage current
- ★ High voltage super FRD
- ★ PFC application

## Mechanical Data

- ★ Case: Molded plastic TO-220AC
- ★ Epoxy: UL 94V-0 rate flame retardant ,
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Mounting position: Any
- ★ Weight: 2.07 grams

**Voltage Range 600 V****Current 20.0 Ampere**

### TO-220AC



## 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%.

| CHARACTERISTIC                                                                                    | SYMBOL   | HFR20A06 |      |            | UNIT |
|---------------------------------------------------------------------------------------------------|----------|----------|------|------------|------|
|                                                                                                   |          | Min.     | Typ. | Max.       |      |
| Recurrent Peak Reverse Voltage                                                                    | VRRM     | -        | -    | 600        | V    |
| RMS Voltage                                                                                       | VRMS     | -        | -    | 420        | V    |
| DC Blocking Voltage                                                                               | VDC      | -        | -    | 600        | V    |
| Average Forward Rectified Current Tc=140°C                                                        | IF(AV)   | -        | -    | 20.0       | A    |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | IFSM     | -        | -    | 250        | A    |
| Instantaneous Forward Voltage @20A(25°C)<br>@20A(150°C)                                           | VF       | -        | -    | 2.4<br>2.0 | V    |
| DC Reverse Current @Tj=25°C<br>At Rated DC Blocking Voltage @Tj=150°C                             | IR       | -        | -    | 20<br>500  | uA   |
| Maximum Reverse Recovery Time (Note 1)                                                            | Trr      | -        | -    | 30         | nS   |
| Typical junction Capacitance (Note 2)                                                             | CJ       | -        | 10   | -          | pF   |
| Typical Thermal Resistance (Note 3)                                                               | RθJC     | -        | -    | 2.6        | °CW  |
| Operating Junction and Storage Temperature Range                                                  | TJ, TSTG | -65      | -    | 175        | °C   |

NOTES : (1) Reverse recovery test conditions IF = 0.5A, IR = 1.0A, Irr = 0.25A.  
 (2) Junction Capacitance test conditions : VR = 10V, IF = 0A.  
 (3) Thermal Resistance junction to case.

# RATINGS AND CHARACTERISTIC CURVES HFR20A06

FIG.1 - FORWARD CURRENT DERATING CURVE

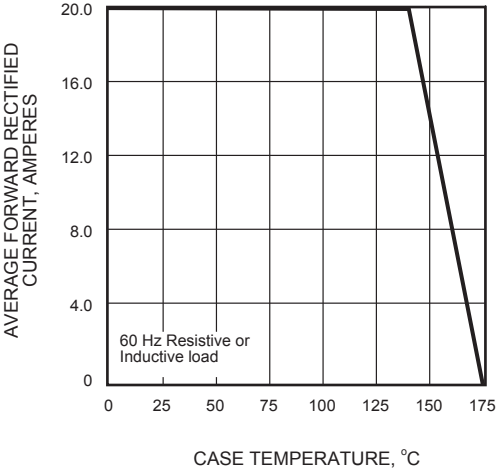


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

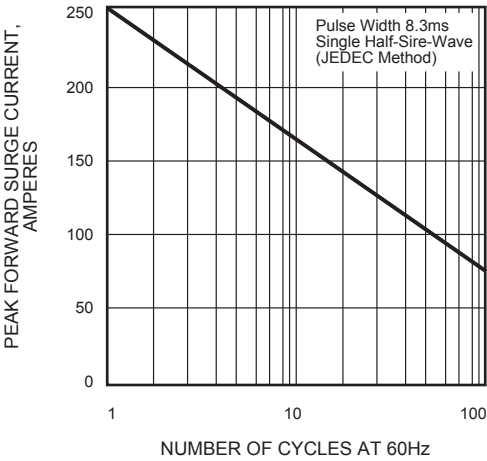


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

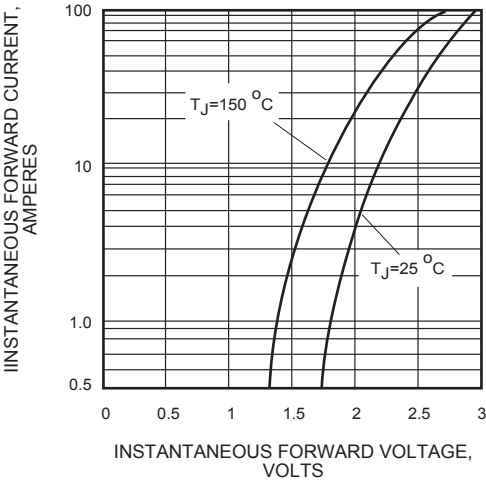


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

