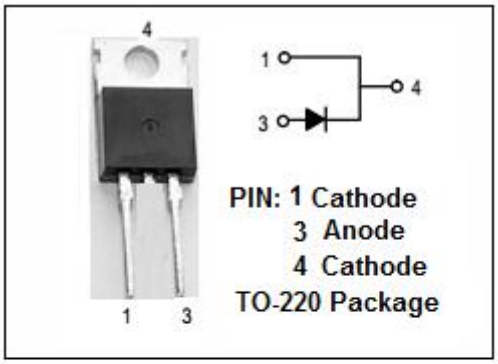
# Fast Recovery Rectifier HFA16TB120




## FEATURES

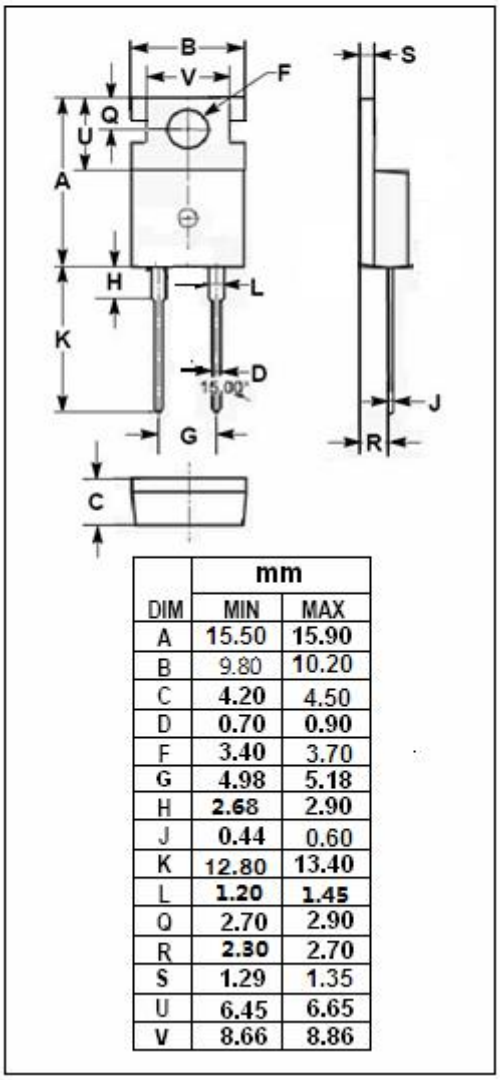
- 1200V blocking voltage
- Ultrafast recovery
- Ultrasoft recovery
- Very low IRRM
- Very low Qrr
- Specified at operating conditions
- Designed and qualified for industrial level
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Be suited for applications in power supplies and power conversion systems (such as inverters), motor drives, and many other similar applications where high speed, high efficiency is needed.

## ABSOLUTE MAXIMUM RATINGS($T_a$=25℃)

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | 1200 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current<br>@Tc=100℃ | 16 | A |
| $I_{FSM}$ | Single pulse forward current<br>Maximum repetitive forward current | 190<br>64 | A |
| $T_J$ | Junction Temperature | -55~150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |




| DIM | mm MIN | MAX |
|---|---|---|
| A | 15.50 | 15.90 |
| B | 9.80 | 10.20 |
| C | 4.20 | 4.50 |
| D | 0.70 | 0.90 |
| F | 3.40 | 3.70 |
| G | 4.98 | 5.18 |
| H | 2.68 | 2.90 |
| J | 0.44 | 0.60 |
| K | 12.80 | 13.40 |
| L | 1.20 | 1.45 |
| Q | 2.70 | 2.90 |
| R | 2.30 | 2.70 |
| S | 1.29 | 1.35 |
| U | 6.45 | 6.65 |
| V | 8.66 | 8.86 |

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## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}c}$ | Thermal Resistance,Junction to Case | 0.83 | ℃/W |

## ELECTRICAL CHARACTERISTICS($T_a$=25℃) (Pulse Test: Pulse Width=300 μ s,Duty Cycle≤2%)

| SYMBOL | PARAMETER | CONDITIONS | MAX | UNIT |
|---|---|---|---|---|
| $V_F$ | Maximum Instantaneous Forward Voltage | $I_F$=16A ;Tj=25℃<br>$I_F$=16A ;Tj=125℃<br>$I_F$=32A ;Tj=25℃ | 3.0<br>2.7<br>3.93 | V |
| $I_R$ | Maximum Instantaneous Reverse Current | $V_R$= $V_{Rrated}$<br>$V_R$= 0..8 x $V_{Rrated}$ Tj=125℃ | 20<br>2000 | μ A |
| $t_{rr}$ | Maximum Reverse Recovery Time | IF =16A;di/dt = 200A/μs;$V_R$=200V; | 135 | ns |