

Semiconductors
High-reliability discrete products and engineering services since 1977

## HER151G-HER158G

## HIGH EFFICIENCY RECTIFIERS

## FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS ( $\mathrm{Sn} / \mathrm{Pb}$ plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( $\mathrm{T}_{\mathrm{A}}=\mathbf{2 5}{ }^{\circ} \mathrm{C}$ unless otherwise noted)

| Characteristics | Symbol | HER |  |  |  |  |  |  |  | Units |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 151G | 152G | 153G | 154G | 155G | 156G | 157G | 158G |  |
| Maximum Forward Rectified Current $\mathrm{T}_{\mathrm{A}}=50^{\circ} \mathrm{C}$ | lo | 1.5 |  |  |  |  |  |  |  | A |
| Maximum Forward Surge Current | IFSM | 50 |  |  |  |  |  |  |  | A |
| Maximum Reverse Current $\begin{aligned} & V_{R}=V_{\text {RRM }}, T_{J}=25^{\circ} \mathrm{C} \\ & V_{R}=V_{\text {RRM }}, T_{J}=125^{\circ} \mathrm{C} \end{aligned}$ | $I_{\text {R }}$ | $\begin{aligned} & 5.0 \\ & 150 \end{aligned}$ |  |  |  |  |  |  |  | $\mu \mathrm{A}$ |
| Typical Junction Capacitance ${ }^{(1)}$ <br> $\mathrm{f}=1 \mathrm{MHz}$ and applied 4V DC Reverse Voltage | $C_{J}$ | 30 |  |  |  |  |  |  |  | pF |
| Storage Temperature Range | $\mathrm{T}_{\text {STG }}$ | -65 to +175 |  |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |
| Operating Temperature Range | TJ | -55 to +150 |  |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |
| Repetitive Peak Reverse Voltage | $V_{\text {RRM }}$ | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| RMS Voltage | $\mathrm{V}_{\text {RMS }}$ | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | V |
| Continuous Reverse Voltage | $V_{\text {R }}$ | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| Maximum Forward Voltage @ $I_{\text {F }}=1.5 \mathrm{~A}$ | $V_{F}$ | 1.0 | 1.0 | 1.0 | 1.3 | 1.3 | 1.85 | 1.85 | 1.85 | V |
| Maximum Reverse Recovery Time ${ }^{(2)}$ | $\mathrm{t}_{\mathrm{rr}}$ | 50 | 50 | 50 | 50 | 50 | 75 | 75 | 75 | ns |

Note 1: Thermal resistance from junction to ambient and from junction to lead length $0.375^{\prime \prime}$ PCB mounted.
Note 2: Reverse recovery time test condition, $I_{F}=0.5 \mathrm{~A}, \mathrm{I}_{\mathrm{R}}=1.0 \mathrm{~A}, \mathrm{I}_{\mathrm{RR}}=0.25 \mathrm{~A}$


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MECHANICAL CHARACTERISTICS

| Case: | DO-15 |
| :--- | :--- |
| Marking: | Alpha-numeric |
| Polarity: | Cathode band |



IGITRON
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FIG.5-TYPICAL JUNCTION CAPACITANCE


