Semiconductors
High-reliability discrete products and engineering services since 1977

## MUR605CT-MUR620CT

## 6 AMP ULTRA FAST RECTIFIER

## 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

| Rating | Symbol | MUR605CT | MUR610CT | MUR615CT | MUR620CT | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Peak repetitive reverse voltage Working peak reverse voltage DC blocking voltage | $V_{\text {RRM }}$ <br> $V_{\text {RWM }}$ <br> $V_{R}$ | 50 | 100 | 150 | 200 | V |
| Average rectified forward current (Rated $\mathrm{V}_{\mathrm{R}}$ ) | $\mathrm{I}_{\text {(AV) }}$ | 6.0 @ $\mathrm{T}_{\mathrm{C}}=130^{\circ} \mathrm{C}$ |  |  |  | A |
| Non-repetitive peak surge current <br> (surge applied at rated load conditions, halfwave, single phase, 60Hz) | IfSM | 75 |  |  |  | A |
| Operating and storage junction temperature range | $\mathrm{T}_{\mathrm{J},} \mathrm{T}_{\text {stg }}$ | -65 to +175 |  |  |  | ${ }^{\circ} \mathrm{C}$ |
| Maximum thermal resistance Junction to case | Reлс | 7.0 |  |  |  | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |

ELECTRICAL CHARACTERSITICS $\left(T_{A}=25^{\circ} \mathrm{C}\right.$ unless otherwise specified)

| Parameter | Symbol | MUR605CT | MUR610CT | MUR615CT | MUR620CT | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum instantaneous forward voltage ${ }^{(1)}$ $\begin{aligned} & \left(I_{\mathrm{F}}=3.0 \mathrm{~A}, \mathrm{~T}_{\mathrm{C}}=150^{\circ} \mathrm{C}\right) \\ & \left(I_{\mathrm{F}}=3.0 \mathrm{~A}, \mathrm{~T}_{\mathrm{C}}=25^{\circ} \mathrm{C}\right) \end{aligned}$ | $V_{F}$ | $\begin{aligned} & 0.895 \\ & 0.975 \end{aligned}$ |  |  |  | V |
| Maximum instantaneous reverse current <br> (Rated dc voltage, $\mathrm{T}_{\mathrm{C}}=150^{\circ} \mathrm{C}$ ) <br> (Rated dc voltage, $\mathrm{T}_{\mathrm{C}}=25^{\circ} \mathrm{C}$ ) | $I_{\text {R }}$ | $\begin{gathered} 250 \\ 5.0 \end{gathered}$ |  |  |  | $\mu \mathrm{A}$ |
| Maximum reverse recovery time ( $\mathrm{I}_{\mathrm{F}}=1.0 \mathrm{~A}, \mathrm{di} / \mathrm{dt}=50 \mathrm{~A} / \mu \mathrm{s}$ ) | $\mathrm{trr}_{\text {r }}$ | 35 |  |  |  | ns |

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6 AMP ULTRA FAST RECTIFIER

MECHANICAL CHARACTERISTICS

| Case | TO-220AB |
| :--- | :--- |
| Marking | Alpha-numeric |
| Pin out | See below |


|  | TO-220AB |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Inches |  | Millimeters |  |
|  | Min | Max | Min | Max |
| A | 0.570 | 0.620 | 14.480 | 15.750 |
| B | 0.380 | 0.405 | 9.660 | 10.280 |
| C | 0.160 | 0.190 | 4.070 | 4.820 |
| D | 0.025 | 0.035 | 0.640 | 0.880 |
| F | 0.142 | 0.147 | 3.610 | 3.730 |
| G | 0.095 | 0.105 | 2.420 | 2.660 |
| H | 0.110 | 0.155 | 2.800 | 3.930 |
| J | 0.018 | 0.025 | 0.460 | 0.640 |
| K | 0.500 | 0.562 | 12.700 | 14.270 |
| L | 0.045 | 0.060 | 1.150 | 1.520 |
| N | 0.190 | 0.210 | 4.830 | 5.330 |
| Q | 0.100 | 0.120 | 2.540 | 3.040 |
| R | 0.080 | 0.110 | 2.040 | 2.790 |
| S | 0.045 | 0.055 | 1.150 | 1.390 |
| T | 0.235 | 0.255 | 5.970 | 6.470 |
| U | - | 0.050 | - | 1.270 |

