MUR110 THRU MUR180
1.0 AMP HIGH EFFICIENCY RECTIFIERS

FEATURES
* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability
* High speed switching

MECHANICAL DATA
* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.34 grams
* Both normal and Pb free product are available:
  * Normal: 80~95% Sn, 5~20% Pb
  * Pb free: 99 Sn above can meet RoHS enviroment substance directive request
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VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.0 Ampere

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

<table>
<thead>
<tr>
<th>TYPE NUMBER</th>
<th>MUR110</th>
<th>MUR120</th>
<th>MUR130</th>
<th>MUR140</th>
<th>MUR150</th>
<th>MUR160</th>
<th>MUR180</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Recurrent Peak Reverse Voltage</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>V</td>
</tr>
<tr>
<td>Maximum RMS Voltage</td>
<td>35</td>
<td>70</td>
<td>140</td>
<td>210</td>
<td>280</td>
<td>420</td>
<td>560</td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC Blocking Voltage</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>V</td>
</tr>
<tr>
<td>.375&quot;(9.5mm) Lead Length at Ta=50°C</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
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<tr>
<td>Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)</td>
<td>30</td>
<td></td>
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<td>A</td>
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<tr>
<td>Maximum Instantaneous Forward Voltage at 1.0A</td>
<td>1.0</td>
<td>1.3</td>
<td>1.70</td>
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<td></td>
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<td></td>
<td>V</td>
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<tr>
<td>Maximum DC Reverse Current at Ta=25°C</td>
<td>5.0</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>uA</td>
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<td>at Rated DC Blocking Voltage Ta=100°C</td>
<td>150</td>
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<td></td>
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<td>uA</td>
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<tr>
<td>Maximum Reverse Recovery Time (Note 1)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>nS</td>
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<td>Typical Junction Capacitance (Note 2)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pF</td>
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<tr>
<td>Operating and Storage Temperature Range Tj, TSTG</td>
<td>-65</td>
<td>+150</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>°C</td>
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</tbody>
</table>

NOTES:
1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
RATING AND CHARACTERISTIC CURVES (MUR110 THRU MUR180)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

FIG.3-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

FIG.5-TYPICAL JUNCTION CAPACITANCE

Notes:
1. Rise Time=7ns max., Input Impedance=1 megohm, 22pF.
2. Rise Time=10ns max., Source Impedance=50 ohms.

JUNCTION CAPACITANCE (pF)

Note: Specification is subject to change without further notice. For more details and updates, please visit our website.