Features

- Low Forward Voltage and Reverse Recovery Characteristics
- Halogen Free, "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (*P* Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 500°C /W Junction to Ambient

<table>
<thead>
<tr>
<th>MCC Part Number</th>
<th>Device Marking</th>
<th>Maximum Recurrent Peak Reverse Voltage</th>
<th>Maximum DC Blocking Voltage</th>
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<tbody>
<tr>
<td>BAS40</td>
<td>43</td>
<td>40V</td>
<td>40V</td>
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<td>BAS40-06</td>
<td>46</td>
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</tbody>
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Electrical Characteristics @ 25°C Unless Otherwise Specified

- Average Forward Current $I_{F(AV)}$: 200mA at 25°C
- Peak Forward Surge Current $I_{FSM}$: 600mA tp<1s, Ta=25°C
- Power Dissipation $P_d$: 200mW $T_A = 25 °C$
- Maximum Forward Voltage $V_F$: 380mV
  - $I_F=1.0mA$
  - $I_F=40mA$
- DC Reverse Current at Rated DC Blocking Voltage $I_{R}$: 10 nA(TYP) 200nA(MAX)
  - tp < 300μs, $V_R = 30V$
- Min Reverse Breakdown Voltage $V_{BR}$: 40V
  - $I_R=10μA$
- Typical Junction Capacitance $C_T$: 5pF Measured at 1.0MHz, $V_R=0.0V$
- Maximum Reverse Recovery Time $t_{rr}$: 5.0ns
  - $I_R=1mA$, $I_R=I_F=10mA$
  - $R_L=100Ω$

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure:
Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

Fig. 2 - Typical Reverse Leakage Characteristics

Fig. 3 - Power Derating Curve
Ordering Information

<table>
<thead>
<tr>
<th>Device</th>
<th>Packing</th>
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</thead>
<tbody>
<tr>
<td>Part Number-TP</td>
<td>Tape&amp;Reel: 3Kpcs/Reel</td>
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</tbody>
</table>

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