Features

- Lead Free Finish/RoHS Compliant (Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Low Leakage and High Surge Capability
- Super Fast Switching Speed For High Efficiency

Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

<table>
<thead>
<tr>
<th>MCC Catalog Number</th>
<th>Device Marking</th>
<th>Maximum Recurrent Peak Reverse Voltage</th>
<th>Maximum RMS Voltage</th>
<th>Maximum DC Blocking Voltage</th>
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<tbody>
<tr>
<td>DLSF11</td>
<td>***</td>
<td>50V</td>
<td>35V</td>
<td>50V</td>
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<tr>
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<td>150V</td>
<td>105V</td>
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<td>DLSF14</td>
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<td>200V</td>
<td>140V</td>
<td>200V</td>
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<td>DLSF15</td>
<td>***</td>
<td>300V</td>
<td>210V</td>
<td>300V</td>
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<td>DLSF16</td>
<td>***</td>
<td>400V</td>
<td>280V</td>
<td>400V</td>
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<tr>
<td>DLSF18</td>
<td>***</td>
<td>600V</td>
<td>420V</td>
<td>600V</td>
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</table>

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current

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<tr>
<th>I_{F(AV)}</th>
<th>1 A</th>
<th>T_A = 55°C</th>
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</thead>
</table>

Peak Forward Surge Current

| I_{FSM}  | 30A | 8.3ms, half sine |

Maximum Instantaneous Forward Voltage

| V_F | 0.975V | 1.75V |

Maximum DC Reverse Current At Rated DC Blocking Voltage

| I_R | 5μA | 50μA |

Maximum Reverse Recovery Time

| T_{rr} | 35ns | 50ns |

Typical Junction Capacitance

| C_J | 15pF | 10pF |

*Pulse Test: Pulse Width 300μsec, Duty Cycle 1%

Notes:
DLSF11 thru DLSF18

Figure 1
Typical Forward Characteristics

- Instantaneous Forward Current - Amperes
- Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve

- Single Phase, Half Wave
- 60Hz Resistive or Inductive Load
- Average Forward Rectified Current - Amperes
- Ambient Temperature - °C

Figure 3
Junction Capacitance

- Junction Capacitance - pF
- Reverse Voltage - Volts

DLSF11 - 15
DLSF16 - 18

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Figure 4
Typical Reverse Characteristics

Figure 5
Peak Forward Surge Current

Figure 6
Reverse Recovery Time Characteristic And Test Circuit Diagram

Notes:
1. Rise Time = 7ns max.
   Input impedance = 1 megohm, 22pF
2. Rise Time = 10ns max.
   Source impedance = 50 ohms
3. Resistors are non-inductive
Ordering Information:

<table>
<thead>
<tr>
<th>Device</th>
<th>Packing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number-TP</td>
<td>Tape&amp;Reel: 5Kpcs/Reel</td>
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