TOSHIBA Schottky Barrier Rectifier Stack Trench Schottky Barrier Type

3 0 Q W K 2 C Z 4 7

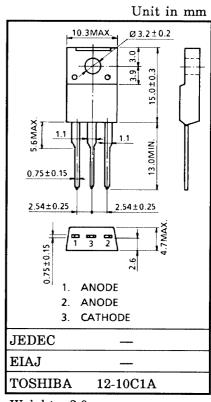
Switching Type Power Supply Application **Converter & Chopper Application**

Repetitive peak reverse voltage: VRRM = 120 V

- Peak Forward Voltage: $V_{FM} = 0.85 V (max)$
- Average output recified current: $I_0 = 30 A$
- Low switching losses and output noise.

Maximum Ratings

| Characteristics | Symbol | Rating | Unit | |
|--|------------------|-------------|------|--|
| Repetitive peak reverse voltage | V _{RRM} | 120 | V | |
| Average output recified current | Ι _Ο | 30 | А | |
| Peak one cycle surge forward current (non-repetitive, sine wave) | I _{FSM} | 250 (50 Hz) | A | |
| Junction temperature | Tj | -40~150 | °C | |
| Storage temperature range | T _{stg} | -40~150 | °C | |
| Screw Torque | _ | 0.6 | N∙m | |



Weight : 2.0g

Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Тур. | Max | Unit |
|---------------------------------|-----------------------|----------------------------------|-----|------|------|------|
| Peak forward voltage | V _{FM} | I _{FM} = 15 A | _ | _ | 0.85 | V |
| Repetitive peak reverse current | I _{RRM} | V _{RRM} = Rated (120 V) | _ | _ | 50 | μΑ |
| Junction capacitance | Cj | $V_{R} = 10 V, f = 1.0 MHz$ | _ | 227 | _ | pF |
| Thermal resistance | R _{th (j-c)} | DC Total, Junction to case | _ | _ | 2.5 | °C/W |

Note: V_{FM}, I_{RRM}, C_i: A value of one cell.

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damage to property.
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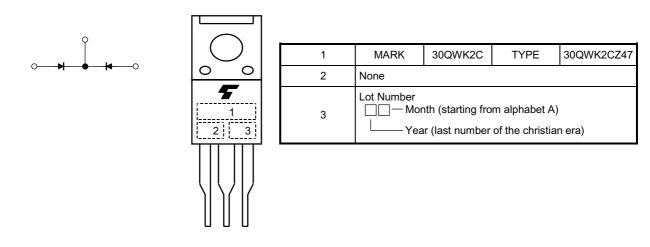
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Polarity

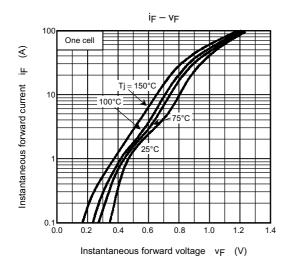
Marking

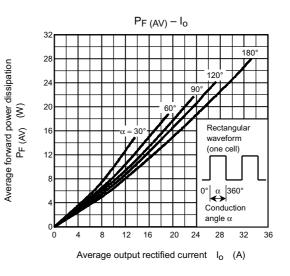


Handling Precaution

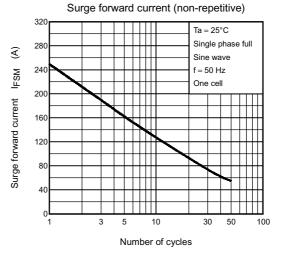
Schottky barrier diodes are having large-reverse-current-leakage characteristic compare to other rectifier products. This current leakage and not proper operating temperature or voltage may cause thermal run. Please take forward and reverse loss into consideration when you design.

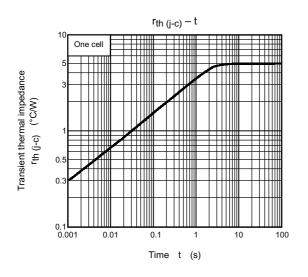
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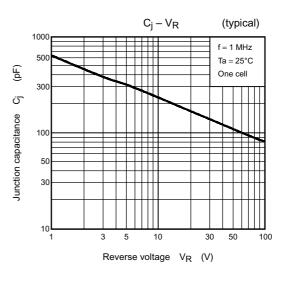




Tc max – I_o Average forward power dissipation Tc max (°C) Rectangular waveform (one cell) 0° ά Conduction angle α Average output rectified current Io (A)







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