

TOSHIBA Schottky Barrier Rectifier Stack Trench Schottky Barrier Type

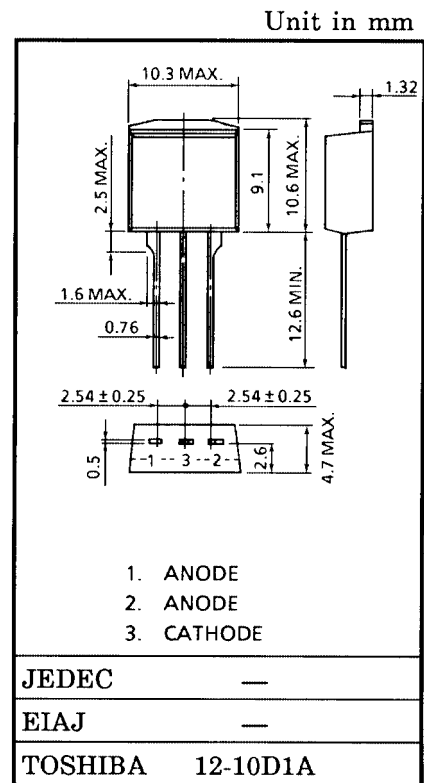
30QWK2C48

Switching Type Power Supply Application
 Converter & Chopper Application

- Repetitive peak reverse voltage: $V_{RRM} = 120\text{ V}$
- Peak Forward Voltage: $V_{FM} = 0.85\text{ V (max)}$
- Average output rectified current: $I_O = 30\text{ A}$
- Low switching losses and output noise.

Maximum Ratings

| Characteristics | Symbol | Rating | Unit |
|--|-----------|-------------|------|
| Repetitive peak reverse voltage | V_{RRM} | 120 | V |
| Average output rectified current | I_O | 30 | A |
| Peak one cycle surge forward current (sine wave) | I_{FSM} | 250 (50 Hz) | A |
| Junction temperature | T_j | -40~150 | °C |
| Storage temperature range | T_{stg} | -40~150 | °C |



Weight : 0.74g

Electrical Characteristics (Ta = 25°C)

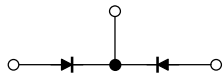
| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|---------------------------------|---------------|---|-----|------|------|------|
| Peak forward voltage | V_{FM} | $I_{FM} = 15\text{ A}$ | — | — | 0.85 | V |
| Repetitive peak reverse current | I_{RRM} | $V_{RRM} = \text{Rated (120 V)}$ | — | — | 50 | μA |
| Junction capacitance | C_j | $V_R = 10\text{ V}, f = 1.0\text{ MHz}$ | — | 227 | — | pF |
| Thermal resistance | $R_{th(j-c)}$ | DC Total | — | — | 1.2 | °C/W |

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

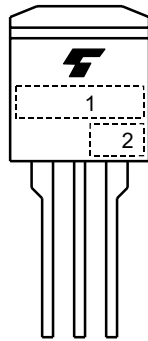
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Polarity



Marking



| | | | | |
|---|--|---------|------|-----------|
| 1 | MARK | 30QWK2C | TYPE | 30QWK2C48 |
| 2 | Lot Number □□ — Month (starting from alphabet A) ——— Year (last number of the christian era) | | | |

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.

