

TOSHIBA Schottky Barrier Rectifier Stack Trench Schottky Barrier Type

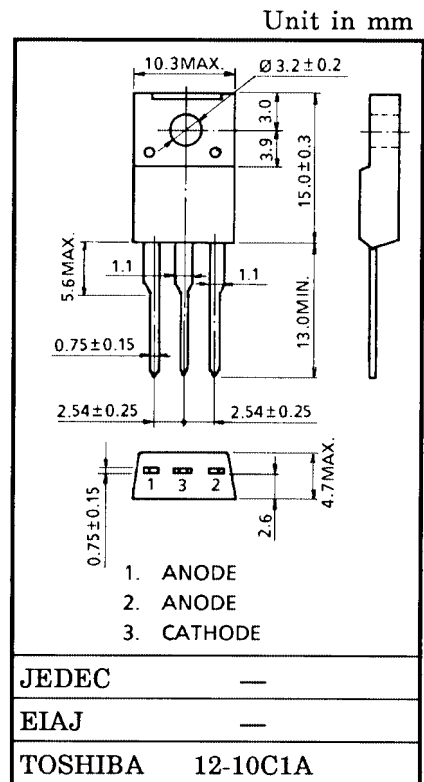
# 30QWK2CZ47

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 (non-repetitive, sine wave)	$I_{FSM}$	250 (50 Hz)	A
Junction temperature	$T_j$	-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)

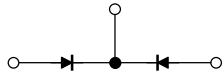
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Peak forward voltage	$V_{FM}$	$I_{FM} = 15\text{ A}$	—	—	0.85	V
Repetitive peak reverse current	$I_{RRM}$	$V_{RRM} = \text{Rated (120 V)}$	—	—	50	μA
Junction capacitance	$C_j$	$V_R = 10\text{ V}, f = 1.0\text{ MHz}$	—	227	—	pF
Thermal resistance	$R_{th(j-c)}$	DC Total, Junction to case	—	—	2.5	°C/W

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

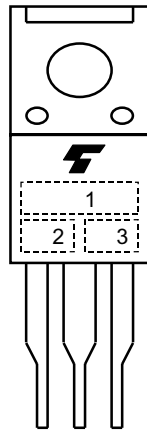
961001EAA1

- TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

## Polarity



## Marking



1	MARK	30QWK2C	TYPE	30QWK2CZ47
2	None			
3	Lot Number <input type="checkbox"/> <input type="checkbox"/> — Month (starting from alphabet A) <input type="checkbox"/> — 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.

