

TOSHIBA Schottky Barrier Rectifier Stack Trench Schottky Barrier Type

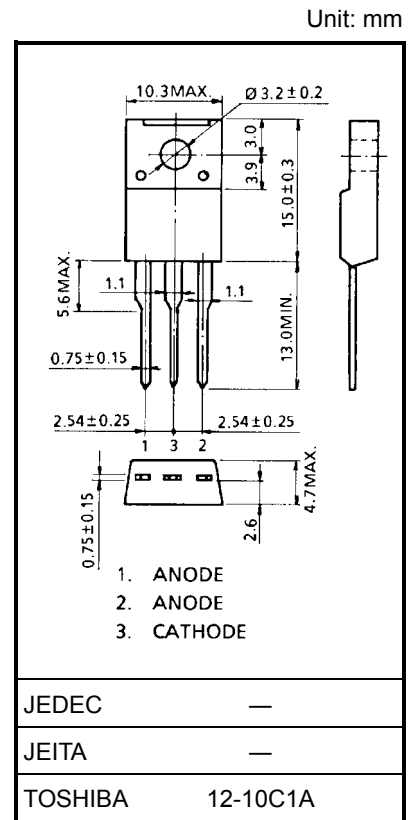
# 30NWK2CZ47

Switching Mode Power Supply Application  
 Converter & Chopper Application

- Repetitive peak reverse voltage:  $V_{RRM} = 100\text{ V}$
- Peak Forward Voltage:  $V_{FM} = 0.83\text{ V (max)}$
- Average output rectified current:  $I_O = 30\text{ A}$
- Low switching losses and output noise.

### Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Characteristics	Symbol	Rating	Unit
Repetitive peak reverse voltage	$V_{RRM}$	100	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	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-40~150	$^\circ\text{C}$
Screw Torque	—	0.6	N·m



### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

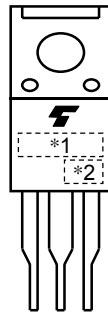
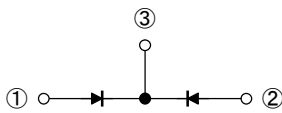
Weight: 2.0 g (typ.)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Peak forward voltage	$V_{FM}$	$I_{FM} = 15\text{ A}$	—	—	0.83	V
Repetitive peak reverse current	$I_{RRM}$	$V_{RRM} = 100\text{ V}$	—	—	50	$\mu\text{A}$
Junction capacitance	$C_j$	$V_R = 10\text{ V}, f = 1.0\text{ MHz}$	—	250	—	pF
Thermal resistance	$R_{th(j-c)}$	DC Total, Junction to case	—	—	2.5	$^\circ\text{C/W}$

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

**Polarity**

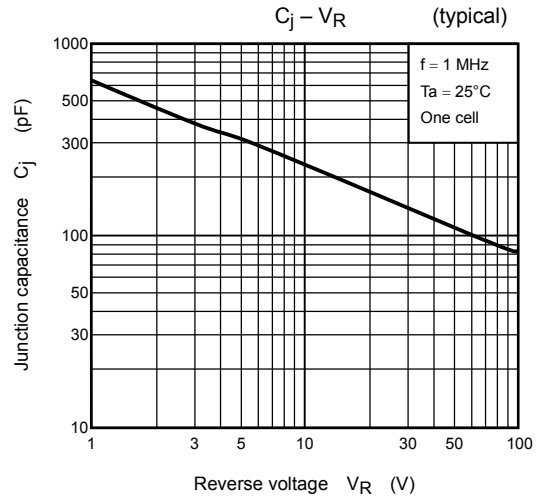
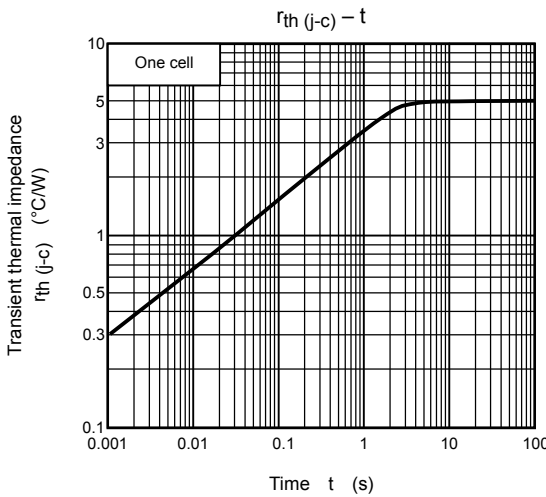
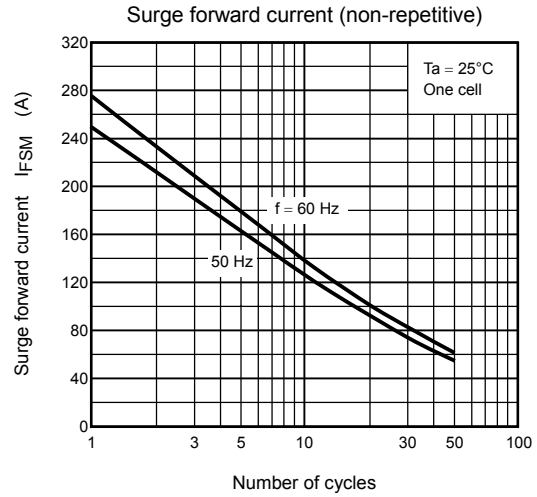
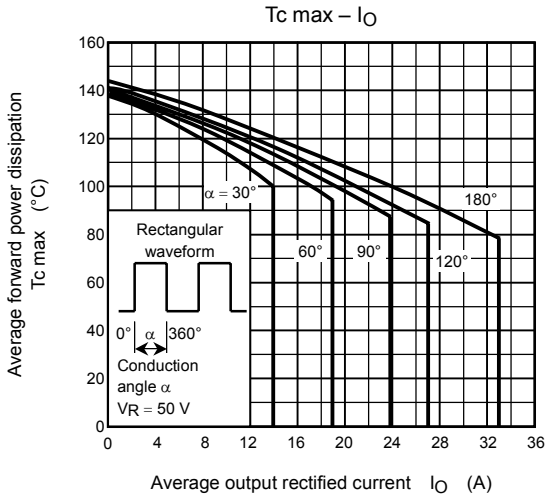
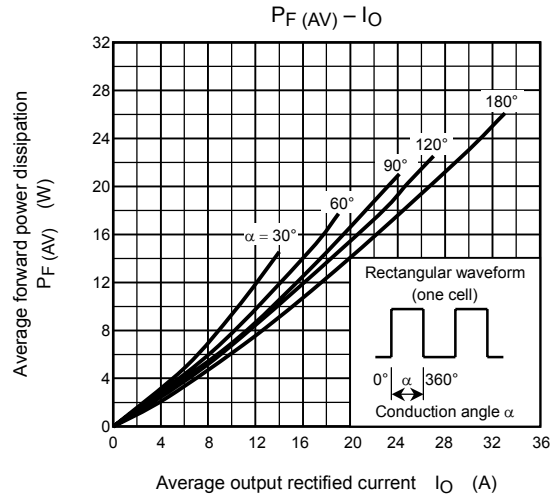
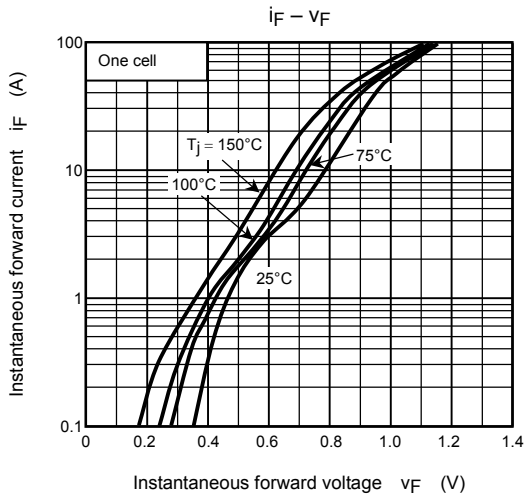
**Marking**

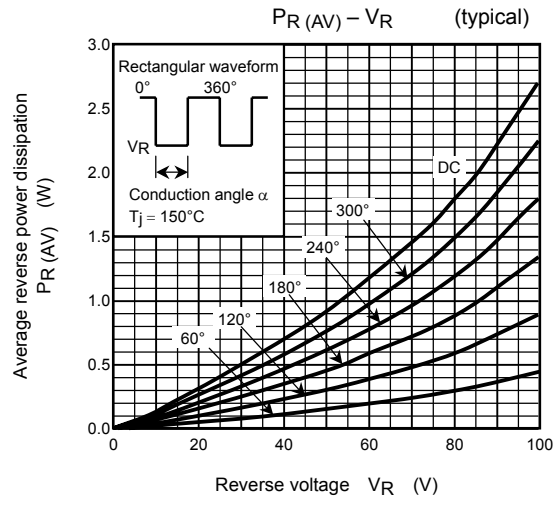
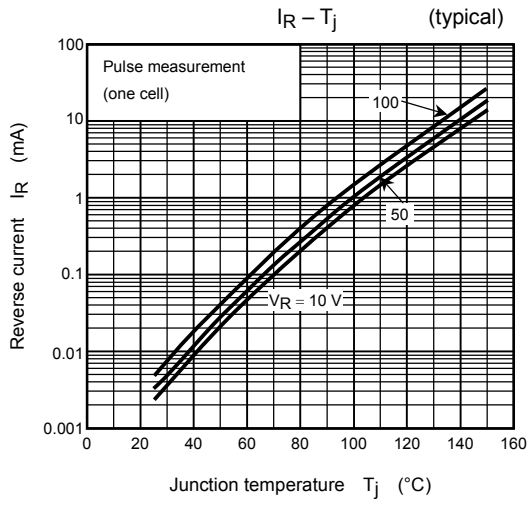


*1	MARK	30NWK2C	TYPE	30NWK2CZ47
*2	Lot Number <input type="checkbox"/> <input type="checkbox"/> — Month (starting from alphabet A) _____ Year (last number of the christian era)			

**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 runaway. Please take forward and reverse loss into consideration when you design.





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