

TOSHIBA Schottky Barrier Rectifier Stack Trench Schottky Barrier Type

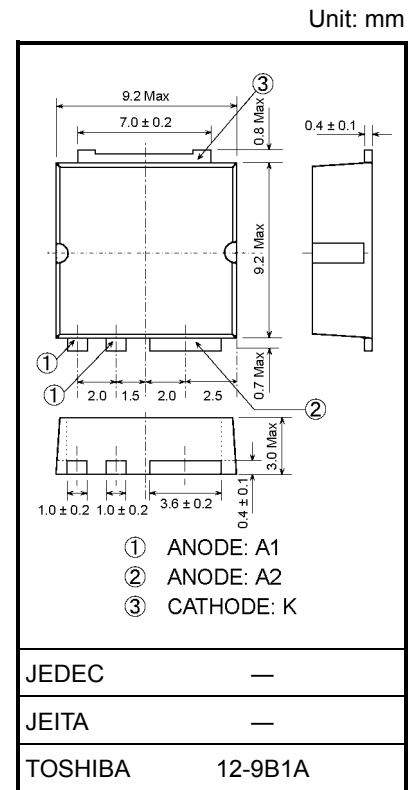
U30QWK2C53

Switching Mode 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: $I_O = 30\text{ A}$
- Power surface mount device for thin flat package.
- “TFP” (Toshiba package name)

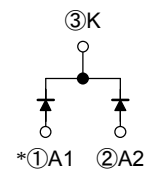
Maximum Ratings ($T_a = 25^\circ\text{C}$)

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}	100 (50 Hz)	A
		110 (60 Hz)	
Junction temperature	T_j	-40 to 150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-40 to 150	$^\circ\text{C}$



Weight: 0.74 g (typ.)

Polarity



*: Common Terminal

Handling Precaution

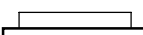
Schottky barrier diodes are having large reverse current leakage characteristic compare to other rectifier products. This current leakage and not proper operating temperature or voltage may cause thermal runaway. Please take forward and reverse loss into consideration when you design.

Electrical Characteristics (Ta = 25°C)

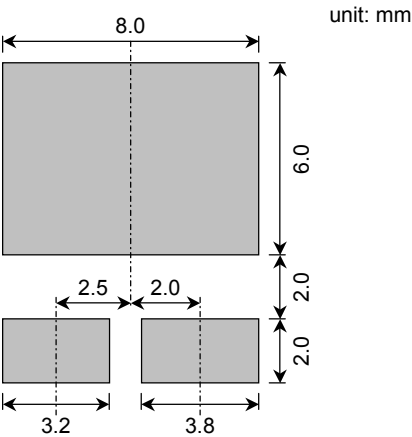
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Peak forward voltage	V_{FM}	$I_{FM} = 15\text{ A}$	—	—	0.85	V
Repetitive peak reverse current	I_{RRM}	$V_{RRM} = 120\text{ V}$	—	—	50	μA
Junction Capacitance	C_j	$V_R = 10\text{ V}$, $f = 1.0\text{ MHz}$	—	230	—	pF
Thermal resistance	$R_{th(j-c)}$	DC Total, Junction to Case	—	—	1.2	$^{\circ}\text{C/W}$

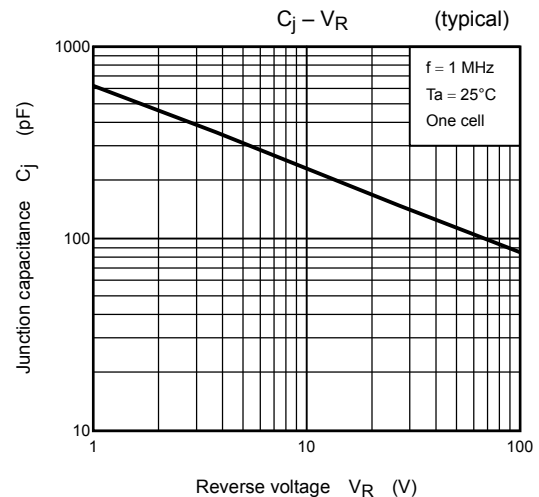
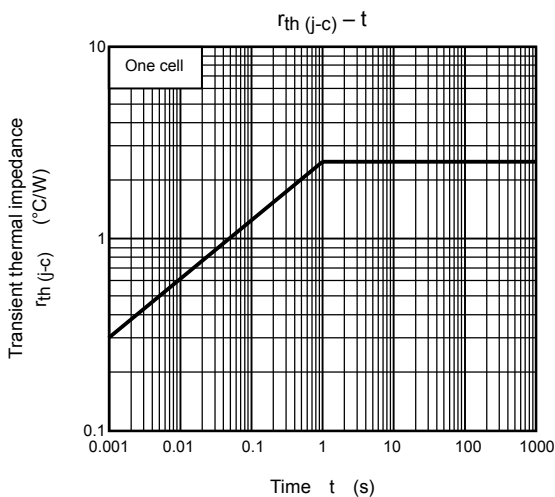
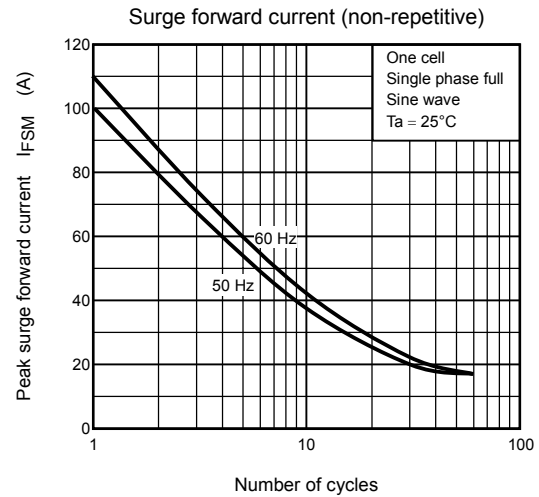
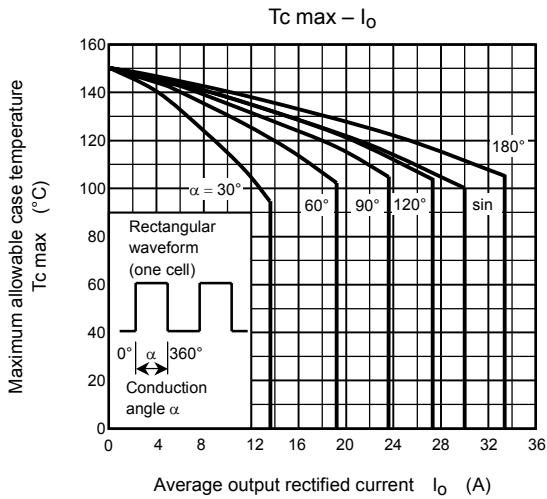
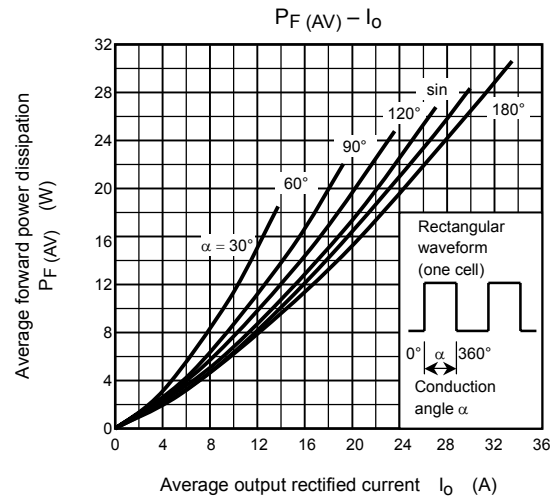
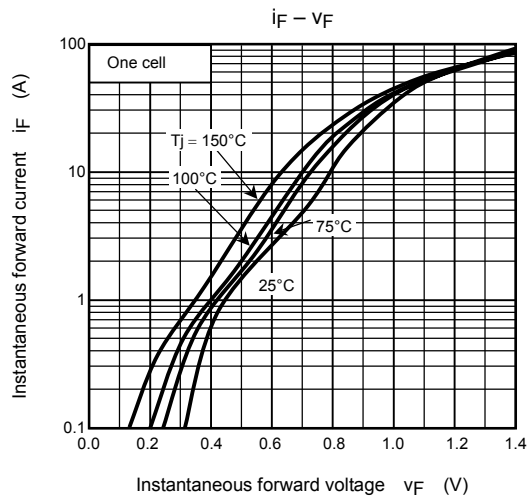
Note: V_{FM} , I_{RRM} , C_j : A value of one cell.

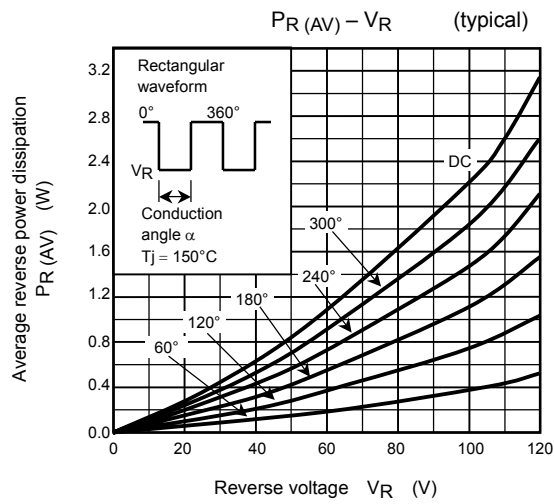
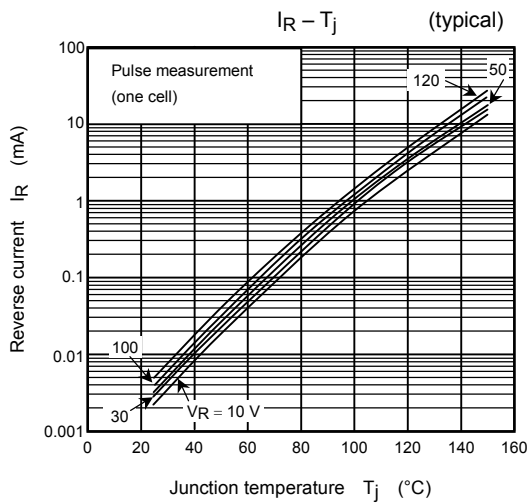
Marking

	※1	MARK	30QWK2C	TYPE	U30QWK2C53
	※2	Lot Number □□ — Month (starting from alphabet A) └—— Year (last number of the christian era)			

Standard Soldering Pad







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000707EAA

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