TOSHIBA Schottky Barrier Rectifier Stack Trench Schottky Barrier Type

U30GWJ2C53C

Switching Mode Power Supply Application
Converter&Chopper Application

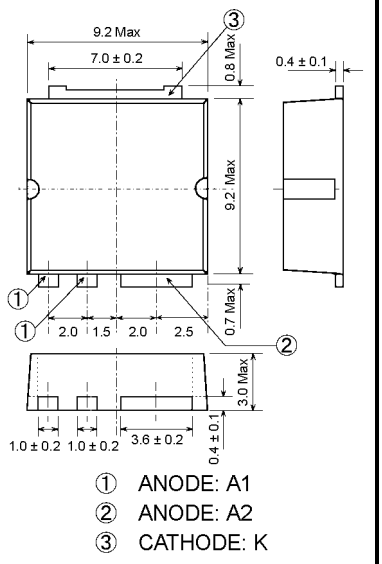
- Repetitive peak reverse voltage: V_{RRM} = 40 V
- Average output recified current: I_O = 30 A
- Power surface mount device for thin flat package.
  "TFP" (Toshiba package name)

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	40	V
Repetitive peak reverse surge voltage (Note1)	V_{RRSM}	48	V
Average output recified current	I_O	30	A
Peak one cycle surge forward current (non-repetitive, sine wave)	I_{FSM}	300 (50 Hz)	A
		330 (60 Hz)	
Junction temperature	T_j	−40 to 125	°C
Storage temperature range	T_{stg}	−40 to 150	°C

Note1: Pulse width (tw) ≦ 500 ns, duty (tw/T) ≦ 1/25

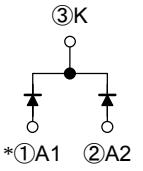
Unit: mm



JEDEC	—
JEITA	—
TOSHIBA	12-9B1A

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.

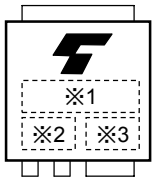
Please take forward and reverse loss into consideration when you design.

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Peak forward voltage	V_{FM}	I_{FM} = 15 A	—	—	0.55	V
Repetitive peak reverse current	I_{RRM}	V_{RRM} = 40 V	—	—	15	mA
Junction Capacitance	C_j	V_R = 10 V, f = 1.0 MHz	—	660	—	pF
Thermal resistance	$R_{th\ (j-c)}$	DC Total, Junction to Case	—	—	1.2	°C/W

Note2: V_{FM}, I_{RRM}, C_j: A value of one cell.

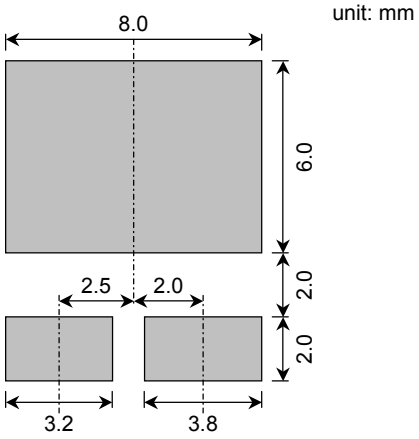
Marking



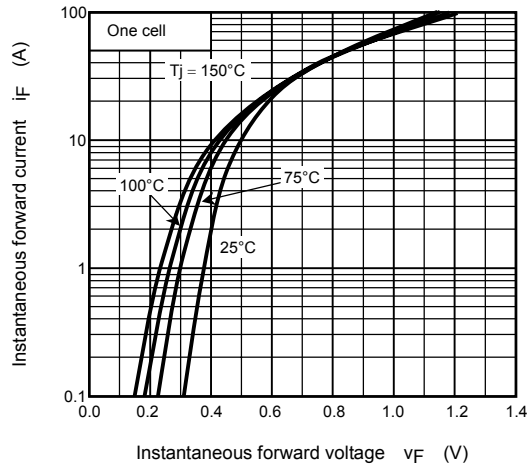
※1	MARK	30GWJ2C	TYPE	U30GWJ2C53C
※2	C			
※3	Lot Number □□ — Month (starting from alphabet A) └— Year (last number of the christian era)			

Standard Soldering Pad

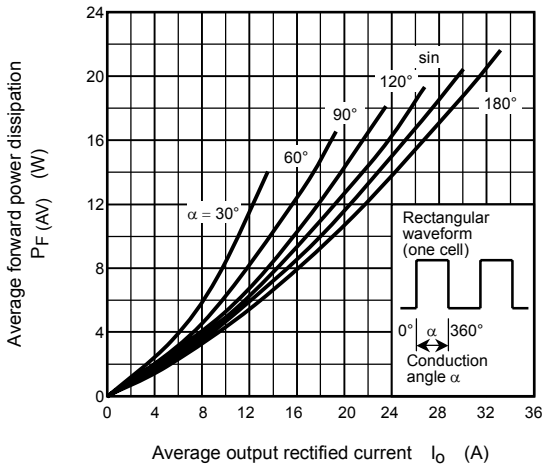
unit: mm



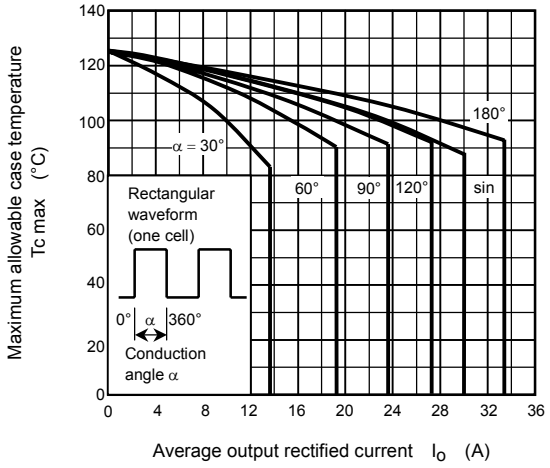
$i_F - v_F$



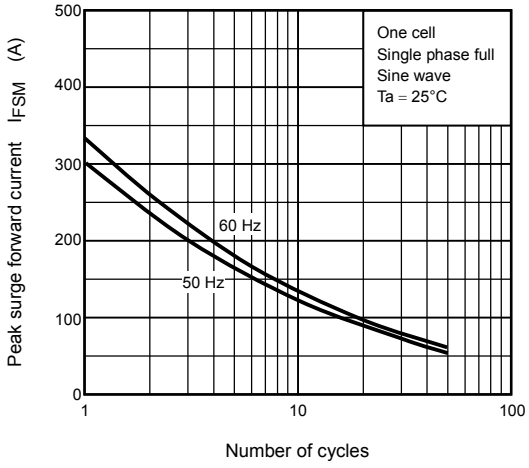
$P_{F\,(AV)} - I_o$



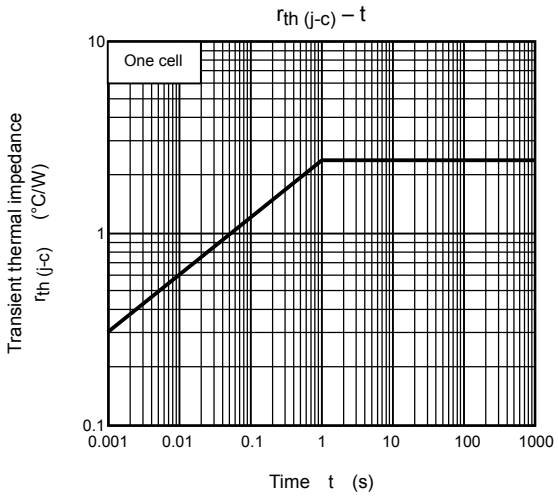
T_c max – I_o



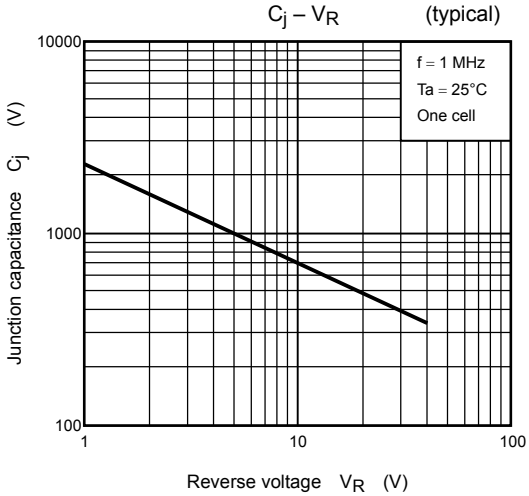
Surge forward current (non-repetitive)



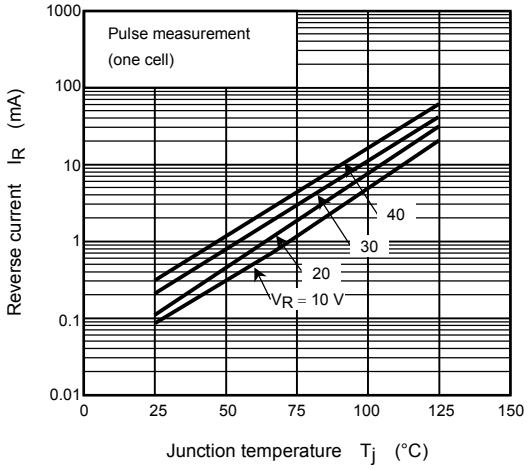
$r_{th\,(j\text{-}c)} - t$



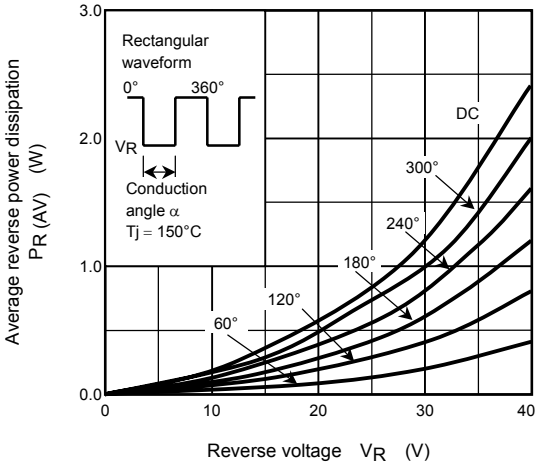
$C_j - V_R$ (typical)



$I_R - T_j$ (typical)



$P_{R\,(AV)} - V_R$ (typical)



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000707EAA

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