



# 30GWJ2CZ47C

## SWITCHING MODE POWER SUPPLY APPLICATION CONVERTER & CHOPPER APPLICATION

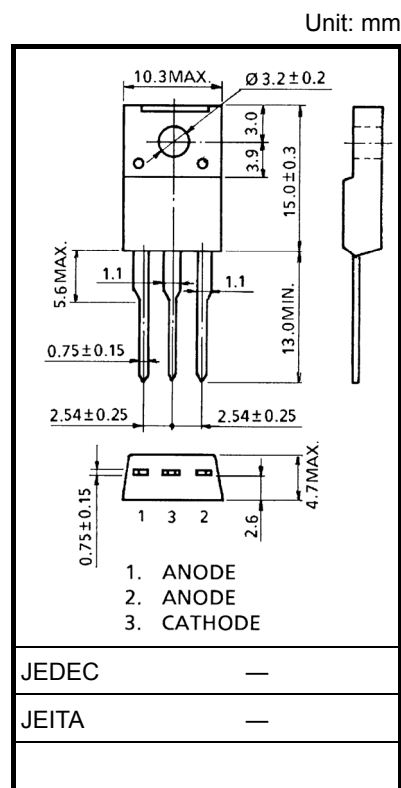
- Repetitive Peak Reverse Voltage :  $V_{RRM} = 40\text{ V}$
- Average Output Rectified Current :  $I_O = 30\text{ A}$
- Low Switching Losses and Output Noise

### ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Repetitive Peak Reverse Surge Voltage (Note 1)	$V_{RRSM}$	48	V
Average Output Rectified Current	$I_O$	30	A
Peak One Cycle Surge Forward Current (Sine Wave)	$I_{FSM}$	300 (50Hz) 330 (60Hz)	A
Junction Temperature	$T_j$	-40~125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-40~150	$^\circ\text{C}$
Screw Torque	—	0.6	N·m

Note 1: Pulse Width ( $t_w$ )  $\leq 500\text{ns}$ , duty ( $t_w / T$ )  $\leq 1 / 25$

Note 2: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings. Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).



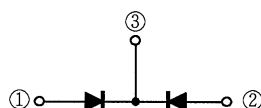
Weight: 2.0 g (typ.)

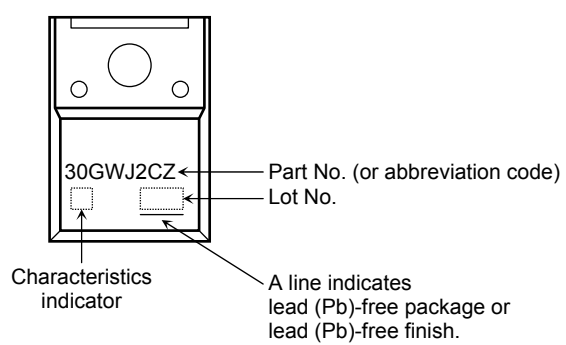
### ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX
Peak Forward Voltage (Note 3)	$V_{FM}$	$I_{FM} = 15\text{A}$	—	0.55	V
Repetitive Peak Reverse Current (Note 3)	$I_{RRM}$	$V_{RRM} = \text{Rated}$	—	15	mA
Junction Capacitance (Note 3)	$C_j$	$V_R = 10\text{V}$ , $f = 1.0\text{MHz}$	600	—	pF
Thermal Resistance	$R_{th(j-c)}$	Total DC, Junction to Case	—	2.5	$^\circ\text{C/W}$

Note 3: A value applied to one cell.

### POLARITY



**MARKING**

Abbreviation Code	Part No.
30GWJ2CZ	30GWJ2CZ47C

