

TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

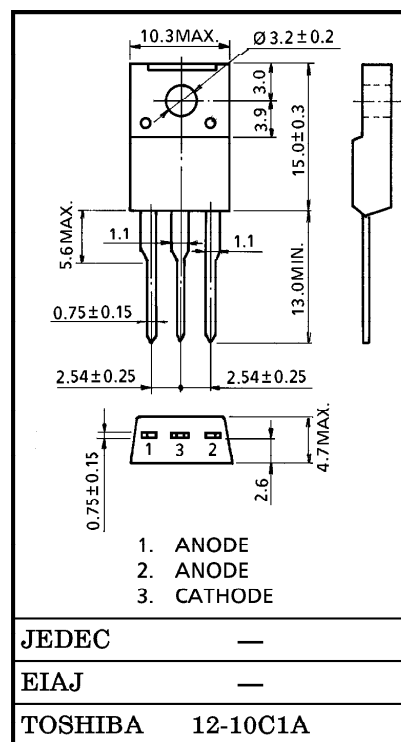
**16DL2CZ47A, 16FL2CZ47A**SWITCHING TYPE POWER SUPPLY APPLICATION  
CONVERTER & CHOPPER APPLICATION

Unit in mm

- Repetitive Peak Reverse Voltage :  $V_{RRM}=200, 300V$
- Average Output Rectified Current :  $I_O=16A$
- Ultra Fast Reverse-Recovery Time :  $t_{rr}=35ns$  (Max.)
- Low Switching Losses and Output Noise.

**MAXIMUM RATINGS**

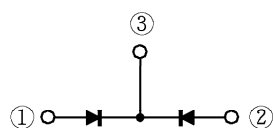
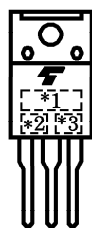
| CHARACTERISTIC                                        |            | SYMBOL           | RATING    | UNIT |
|-------------------------------------------------------|------------|------------------|-----------|------|
| Repetitive Peak Reverse Voltage                       | 16DL2CZ47A | V <sub>RRM</sub> | 200       | V    |
|                                                       | 16FL2CZ47A |                  | 100       |      |
| Average Output Rectified Current (Full Sine Waveform) |            | I <sub>O</sub>   | 16        | A    |
| Peak One Cycle Surge Forward Current (Non-Repetitive) |            | I <sub>FSM</sub> | 80 (50Hz) | A    |
|                                                       |            |                  | 88 (60Hz) |      |
| Junction Temperature                                  |            | T <sub>j</sub>   | −40~150   | °C   |
| Storage Temperature Range                             |            | T <sub>stg</sub> | −40~150   | °C   |
| Screw Torque                                          |            | —                | 0.6       | N·m  |

**ELECTRICAL CHARACTERISTICS** ( $T_a = 25^\circ C$ )

Weight : 2.0g

| CHARACTERISTIC                           |            | SYMBOL        | TEST CONDITION               | MIN. | TYP. | MAX. | UNIT    |
|------------------------------------------|------------|---------------|------------------------------|------|------|------|---------|
| Peak Forward Voltage (Note 1)            | 16DL2CZ47A | $V_{FM}$      | $I_{FM}=8A$                  | —    | —    | 0.98 | V       |
|                                          | 16FL2CZ47A |               |                              | —    | —    | 1.3  |         |
| Repetitive Peak Reverse Current (Note 1) |            | $I_{RRM}$     | $V_{RRM}=\text{Rated}$       | —    | —    | 50   | $\mu A$ |
| Reverse Recovery Time (Note 1)           |            | $t_{rr}$      | $I_F=2.0A, di/dt=-50A/\mu s$ | —    | —    | 35   | ns      |
| Forward Recovery Time (Note 1)           |            | $t_{fr}$      | $I_F=1.0A$                   | —    | —    | 100  | ns      |
| Thermal Resistance                       |            | $R_{th(j-c)}$ | DC Total, Junction to Case   | —    | —    | 3.3  | °C/W    |

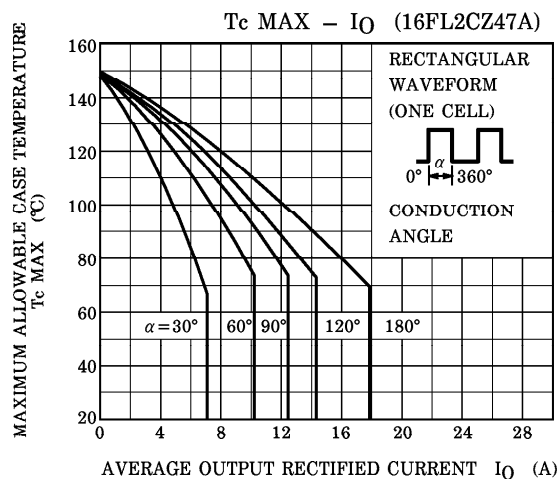
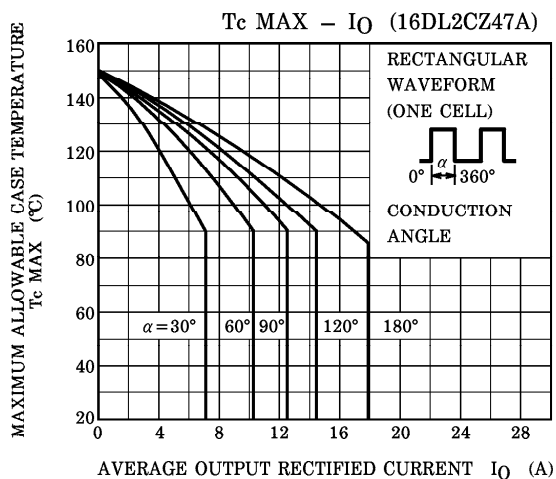
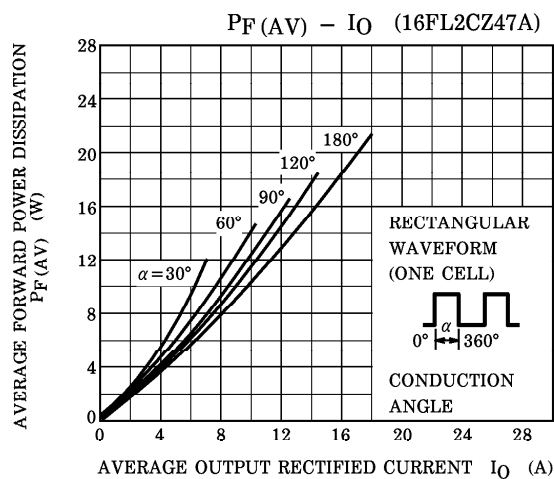
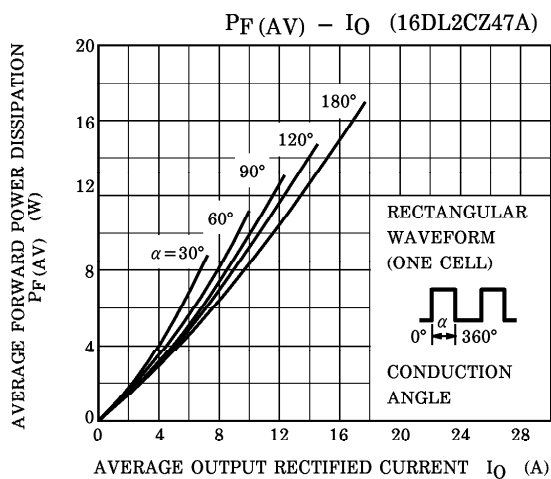
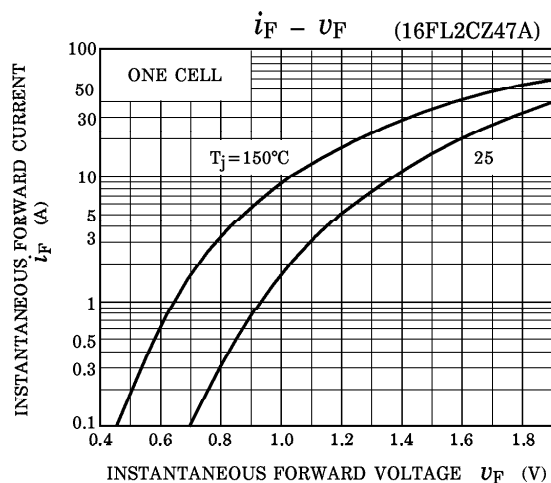
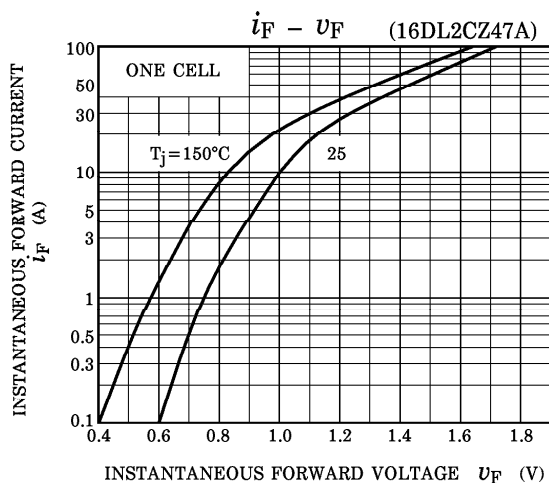
(Note 1) A value of one cell.

**POLARITY****MARKING**

|    |                                                                                                                                    |         |      |            |
|----|------------------------------------------------------------------------------------------------------------------------------------|---------|------|------------|
| #1 | MARK                                                                                                                               | 16DL2CZ | TYPE | 16DL2CZ47A |
|    |                                                                                                                                    | 16FL2CZ |      | 16FL2CZ47A |
| #2 | A                                                                                                                                  |         |      |            |
| #3 | Lot Number                                                                                                                         |         |      |            |
|    | <div><div><div>□□</div><div>—Month (Starting from Alphabet A)</div></div><div>—Year (Last Number of the Christian Era)</div></div> |         |      |            |

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